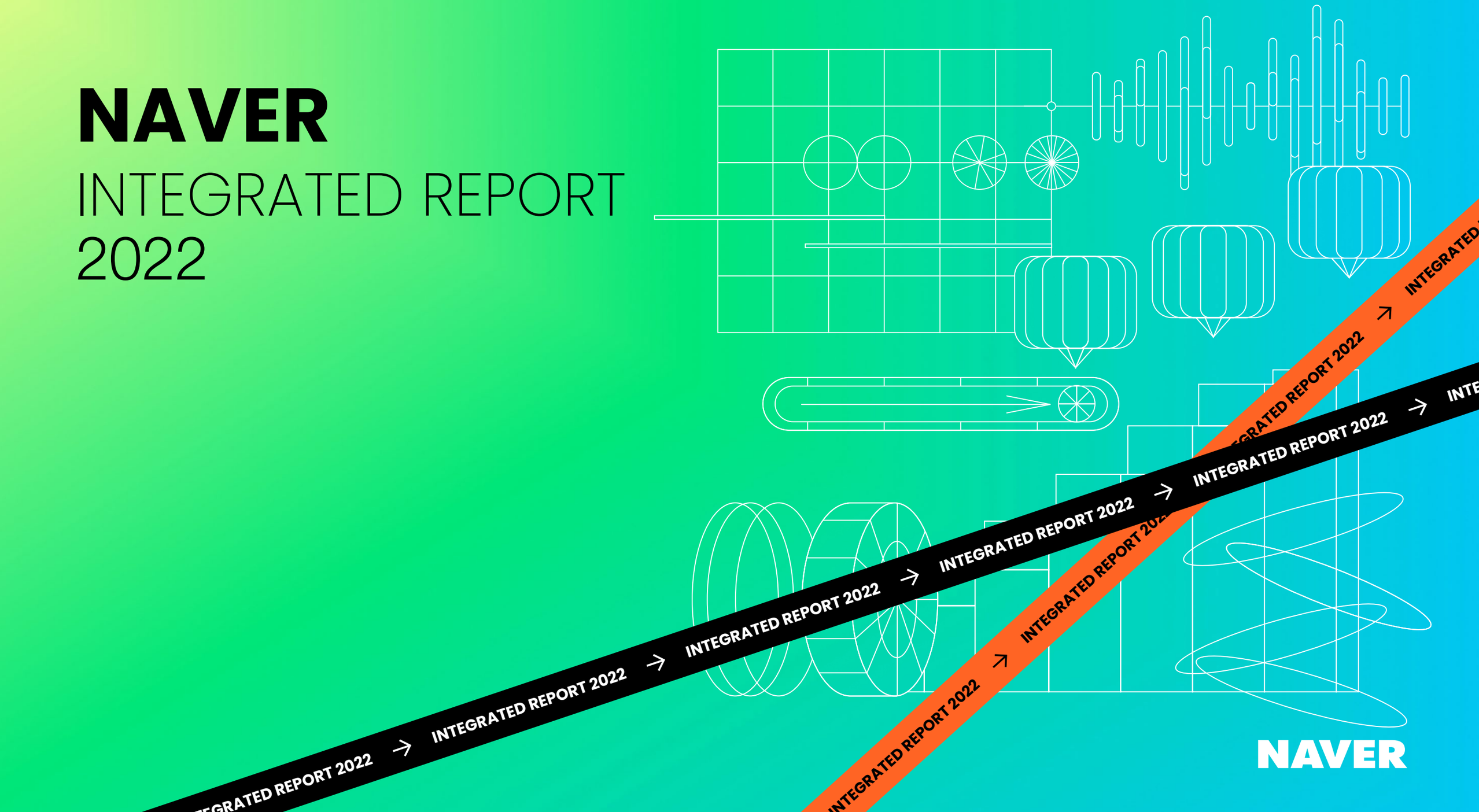
NAVER

INTEGRATED REPORT 2022



ABOUT THIS REPORT

OUTLINE

This is NAVER's "Integrated Report" and is published to share our financial and non-financial performance with our investors and other stakeholders, with final approval being given by the Board of Directors of NAVER in June 2023.

REPORTING PERIOD

The reporting period of this report is as follows:

- Financial performance covers the company's performance by December 31, 2022.
- Business performance covers the company's activities by December 31, 2022.
- Management performance covers matters for which decisions were made by March 31, 2023.
- As for some performance, if the results need to be tracked continuously, we have used data for the past three years or more.
- The report provides some of key business and management performance indicators for the first half of 2023, serving as a point of reference for readers.

REPORTING SCOPE

The reporting scope of this report is as follows:

- Reporting on financial and business performance includes headquarters and all business sites in Korea and overseas.
- Non-financial performance is based on the separate outcomes of NAVER Corporation, and the scope of environmental performance includes NAVER's company buildings; "1784" and "Green Factory,"; "GAK Chuncheon," the company's Internet data center; "Connect One," a training institute for NAVER employees; "NAVER Square," a space for win-win growth with partners; and leased business sites.
- Some of the performances include those of NAVER's subsidiaries, and in such instances, the report specifies the respective subsidiary involved.

REPORTING STANDARDS

This report's reporting standards are as follows:

- ESG information has been prepared in accordance with GRI (Global Reporting Initiative) Standards 2021 and SASB (Sustainability Accounting Standards Board).
- Financial information is based on the consolidated financial statements in accordance with the Korean International Financial Reporting Standards (K-IFRS).
- The integrated description method of financial and non-financial performance complies with the principles and content of the Framework presented by the Value Reporting Foundation.

THIRD PARTY ASSURANCE

This report has been assured by DNV, an independent assurance corporation, to ensure the credibility of all the information created, and the verification was completed in accordance with AA1000AS, an international verification standard.

In case there may be any discrepancies between the Korean version and English version of this report, due to reasons including but not limited to mistranslation, simple error or typo, the Korean version shall dictate.

INQUIRIES

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Created by
TEAM NAVER

Launched as a search engine provider in 1999, NAVER manifested exponential growth by expanding from domestic to global, and diversifying its business segments from Search into Commerce, Content, Fintech, B2B and more. Formerly a company with a single search engine, we are now a company equipped with a number of engines. As our business portfolio became diversified, the number of experts and talents in each field has increased, making us here at NAVER a truly strong team.

"Team NAVER", a large organization made up of a number of robust engines, is what I consider our greatest competitive advantage. 700 million users use NAVER's services and technologies, while 10 million content creators and 2.5 million SMEs are growing together with Team NAVER.

Choi Soo-yeon
President & CEO, NAVER Corporation

From the first episode of Team NAVER entitled
"NAVER's new mission, change, challenge and global story"

TEAM NAVER
Create New Opportunities

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GREEN IMPACT OF TEAM NAVER

Net-zero Stewardship

NAVER serves users around the world every day with advanced technology and unique platforms while nurturing the potential of content creators and SMEs in the NAVER ecosystem. The process, however, requires extensive data storage and processing, which in turn requires a lot of power. We established the "2040 Carbon Negative" strategy in 2020 to maximize eco-friendly effects through business activities while minimizing negative environmental impact. In order to achieve this goal, in 2022, NAVER strived to bring about practical changes by expanding the adoption of renewable energy, reducing the environmental impact of its operations, developing eco-friendly products and solutions, and expanding external partnerships such as the CDP and EV100. Furthermore, we have since expanded the scope of NAVER Green Impact across our entire value chain, including our partners, users, and subsidiaries, continuing our strong progress towards achieving "Carbon Negative".

→ NAVER TCFD Report 2022 → NAVER Green Commerce Report 2022

2040 CARBON NEGATIVE

Achieving net zero by

2040

OPERATIONAL EXCELLENCE

Reducing our environmental impact

5,490,399 kWh

Renewable energy consumption in 2022

PUE 1.1

GAK Chuncheon maintained an average PUE of 1.1 thanks to its eco-friendly technology and advanced operational efficiency

OFFSET PARTNERSHIP

Expanding external partnerships

Participation in global green initiatives

RE100 TCFD CDP EV100

FUTURE GREEN PRODUCT

Developing green products and service solutions

710 million

Amount of paper documents replaced by NAVER e-document service as of 2022

* Including Virtual Assistant Service usage

4.26 million

Number of greensumers at NAVER Smart Store's special events, NAVER Shopping Live, Green Friday, etc. in 2022.

CREATED BY TEAM NAVER

SOCIAL IMPACT OF TEAM NAVER

Impact Beyond NAVER

As a tech platform, NAVER seeks change and takes on new challenges to provide cutting-edge technology as a familiar service that anyone can use easily every day. Furthermore, we strive to ensure that NAVER's technologies and platforms become the soil for the growth of SMEs and creators, that their values blossom within the NAVER ecosystem, and that the fruits of their success lead to positive changes in our society as a whole. Created by Team NAVER, "Project Flower" is a social impact that discovers the value of SMEs and creators and supports their sustainable success. Project Flower has been recognized for its authenticity and value on the back of its social influence and responsibilities required for platform companies. In 2022, NAVER went one step further and prepared for a new evolution by seeking ways for Project Flower to grow further in line with social expectations and the changing times.

→ NAVER Project Flower → NAVER D-Commerce Report 2022

NAVER PROJECT FLOWER

NAVER FOUNTAIN FUND

We help SMEs and creators to achieve digital transformation while also providing the soil for their growth.

ONLINE STORE

We contribute to the development of online sales channels and the sales growth of SMEs through online store platforms such as Smart Store.

OFFLINE STORE

We support SMEs' market development, online conversion, corporate growth, and digital expansion.

ON/OFFLINE SME FULL CARE SYSTEM

We support the growth of on/offline SMEs step by step with our own technologies, platforms, and infrastructure.

58.97 KRW billion

The "Public Service Platform" value of the Fountain Fund in the donation area as of the end of 2022

550,000

Number of sellers operating at NAVER Smart Store as of the end of 2022

1,110,000

Number of local businesses in non-metropolitan areas using Smart Place as of June 2022

KRW 17.4 trillion

Accumulated amount of "Quick Settlement" service usage for two years (2021-2022)

39.86 KRW billion

The "Business Platform" value of the Fountain Fund in the social contribution area as of the end of 2022

230+

Number of Empathy Stores that realize fair trade, eco-friendliness, and job creation, etc.

230%

Year-on-year increase rate in the number of orders for NAVER Local Marketplace Grocery Delivery Platform in 2022.

KRW 200 billion+

Amount of Smart Store Business Loan as of the first quarter of 2023

IMPACT ENABLER OF TEAM NAVER

On Board Together

NAVER's best competitiveness and greatest asset are its colleagues who take on challenges together. As the scale of the business grows and the services it provides expand, the diversified talents of Team NAVER cooperate and innovate based on the experience and knowledge they have accumulated. They respect and learn from each other while striving to fulfill their own potential in order to have a positive impact on the daily lives of millions of people around the world who work with NAVER, and to realize the imminent future ahead of time. Accordingly, the company shares its current achievements and future values with its employees and empowers them to create a working culture that encompasses not only effective welfare programs, but also autonomy over working hours and places. In 2022, all of NAVER's employees continued to make new attempts and challenges, including the new work system, "Connected Work", in a drive to make Team NAVER even stronger and more united.

→ NAVER GLOBAL CAREERS

BUILDING A HEALTHY ORGANIZATIONAL CULTURE

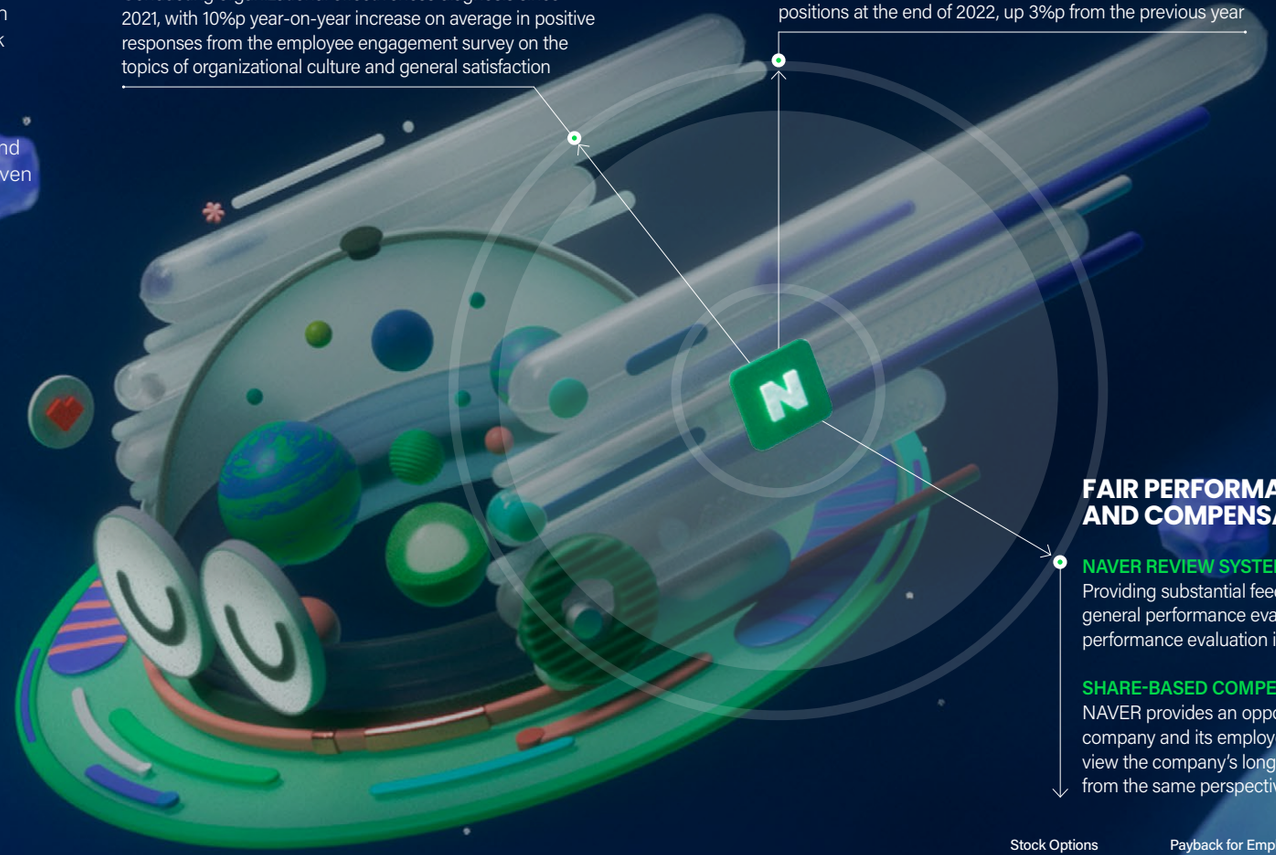
SURVEYS ON EMPLOYEES' SATISFACTION WITH NAVER'S ORGANIZATIONAL CULTURE

Conducting organizational effectiveness diagnosis since 2021, with 10%p year-on-year increase on average in positive responses from the employee engagement survey on the topics of organizational culture and general satisfaction

RESPECTING DIVERSITY IN THE WORKPLACE

GENDER RATIO OF LEADER POSITIONS

Female employees accounted for 30% of all leader positions at the end of 2022, up 3%p from the previous year



FAIR PERFORMANCE EVALUATION AND COMPENSATION

NAVER REVIEW SYSTEM

Providing substantial feedback for growth beyond the general performance evaluation, with 96.5% of employee performance evaluation implementation rate in 2022.

SHARE-BASED COMPENSATION PROGRAM

NAVER provides an opportunity for the growth of the company and its employees while helping the latter to view the company's long-term value and growth potential from the same perspective as its shareholders.

Stock Options (2019-2021)	Payback for Employee Stock Purchase (2020-)	Stock Grants (2021-)
2019	2020	2021

Future-proof
TEAM NAVER

After more than 10 years of endeavor, NAVER has entered the global 3.0 stage after passing through the global 1.0 stage, which created a success story of LINE on the global stage, and the global 2.0 stage, which laid the foundation for new challenges by building up new portfolios one by one around the world. NAVER is being reborn as Team NAVER that grows through collaboration with its various partners and through cooperation among its employees. 2022 was a year in which NAVER laid the foundations for an even bigger leap forward as a global company.

Whether it is the growth story that NAVER has written so far or the new future that it is going to open up, at the center of it all is Team NAVER. In 2022, NAVER established a huge platform, "1784," as a new base camp for global challenges where each and every employee of NAVER, along with our many partners willing to experiment with various technologies with us, can fully demonstrate their capabilities and increase team synergy. 1784 is an office space created through the integration of new technologies that coexist with robots. There, all technologies that will lead NAVER's future, such as robots, autonomous driving, AI, and cloud, are converged. Faced with the challenge of tightly connecting and converging people, technology, and space, Team NAVER will focus on creating new things that will change daily life for everyone.

1784, The Testbed

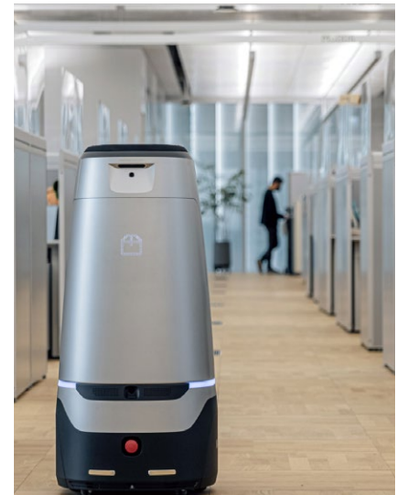
TURNING INNOVATION INTO REALITY

"1784," the unique name of NAVER's second office building, refers to the lot number of the building and the year when the first Industrial Revolution began. Just as the Industrial Revolution changed people's lives, the building 1784 embodies NAVER's determination and value of challenges to make various innovations a reality by using the building as a huge technology testbed. NAVER 1784 is the world's first robot-friendly building constructed with the concept of a tech convergence building. It is both a futuristic workspace and an eco-friendly building that has won the LEED Platinum rating, the highest international green building certification. At 1784, where the building itself is technology and an eco-friendly system, Team NAVER constantly experiments and challenges to create a new tomorrow.

01.

Meet tomorrow's robots, today

The space innovation that 1784 seeks to create begins with robots. "Rookie," a service robot that travels around 1784, is a delivery robot developed on the basis of "AROUND," NAVER LABS' self-driving robot platform. It provides a variety of convenience services such as home delivery, lunch boxes, and cafe delivery. In addition, various robot experiments are being conducted throughout 1784. The two-armed robot "AMBIDEX" helps disinfect the Rookie after delivery, while the drawing robot "ARTO-1" draws pictures on the tablet PC, attracting the attention of visitors to 1784. Robots that look like "Brown" and "Sally," the representative characters of LINE FRIENDS (currently IPX), pass by people naturally and carry out NAVER LABS' HRI (Human-Robot Interaction) research tasks. As such, 1784 serves as an extremely large robotic laboratory, preparing for a world where robots naturally integrate into our lives.



Service Robot Rookie

Based on 5G brainless robot technology, Rookie provides various services at 1784 while freely moving between floors by riding "ROBOPORT," the world's first robot-only elevator.

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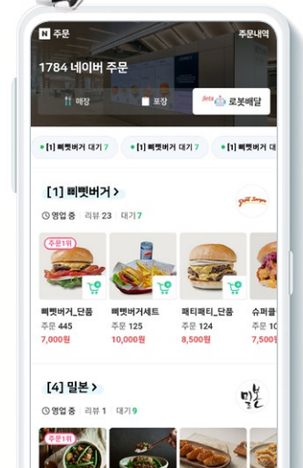
02.

Work with tomorrow's tools, today

1784 is a huge "tech convergence platform" that has integrated Team NAVER's technologies. It is home not only to collaboration between many organizations within NAVER but also to experiments and the convergence of various technologies by Team NAVER in a larger sense, including its partners. The innovative way of working and future of working environment are newly designed at 1784, where new changes are created. People can freely enter and exit with only facial recognition, control the work environment – such as the lighting, temperature, and ventilation - with a single mobile app, and receive systematic health care at an affiliated clinic where medical staff and AI work together. NAVER's various advanced technologies have permeated throughout the building to create a better work environment, and working in it will set a new standard for the future.



CLOVA FaceSign

At the speed gate equipped with the CLOVA Facial Recognition feature, which has been recognized for its global technological competitiveness, members of Team NAVER can pass through without stopping or without having to tag their employee IDs.

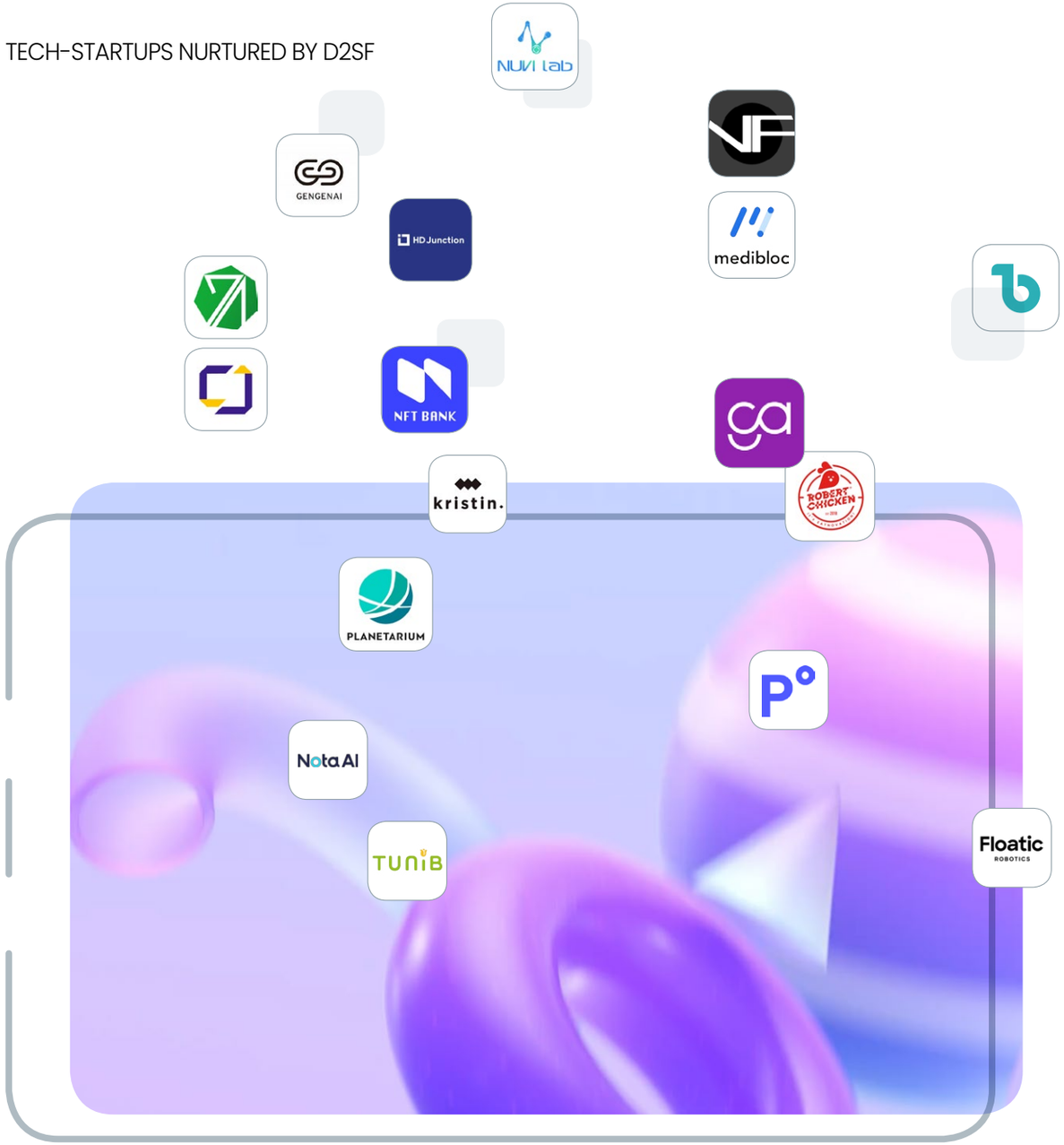
NAVER CARE

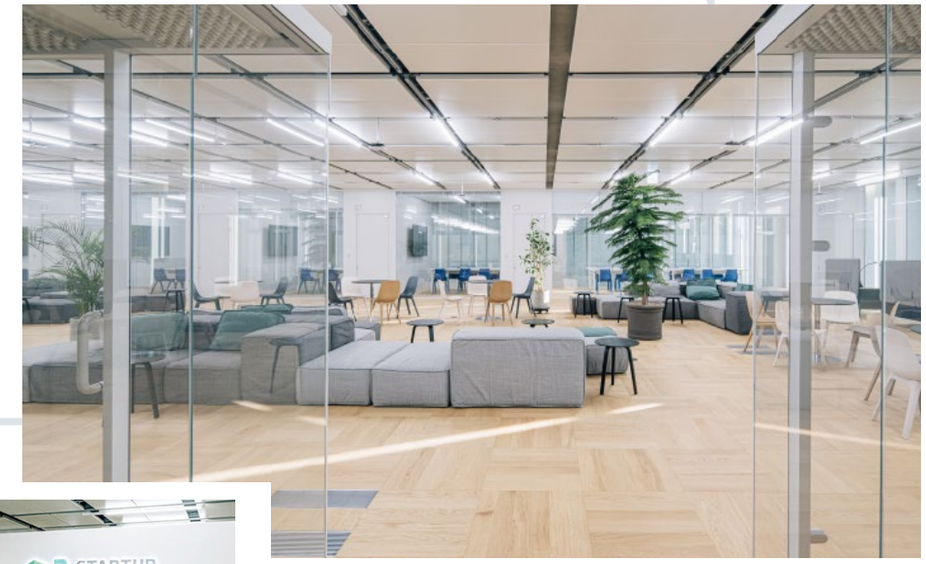
NAVER CARE, an affiliated clinic located within the office building, provides employees with systematic medical services and health management solutions by adding NAVER's technology to the entire diagnosis process.

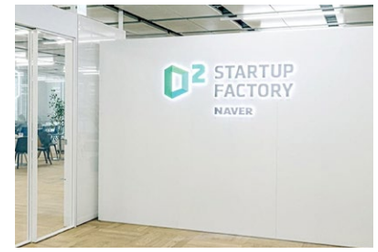
WORKS Secretary

People can use the robot delivery service through the newly implemented AI chatbot in NAVER WORKS, and receive various life support services, such as ordering food and beverages from in-house cafes and restaurants and checking their parking locations.

TECH-STARTUPS NURTURED BY D2SF







D2SF@Bundang

D2SF@Bundang is a 140-seat space for competent tech startups that work together with Team NAVER to create synergy for innovation in diverse fields, such as AI, metaverse, data analysis, and healthcare.

03.

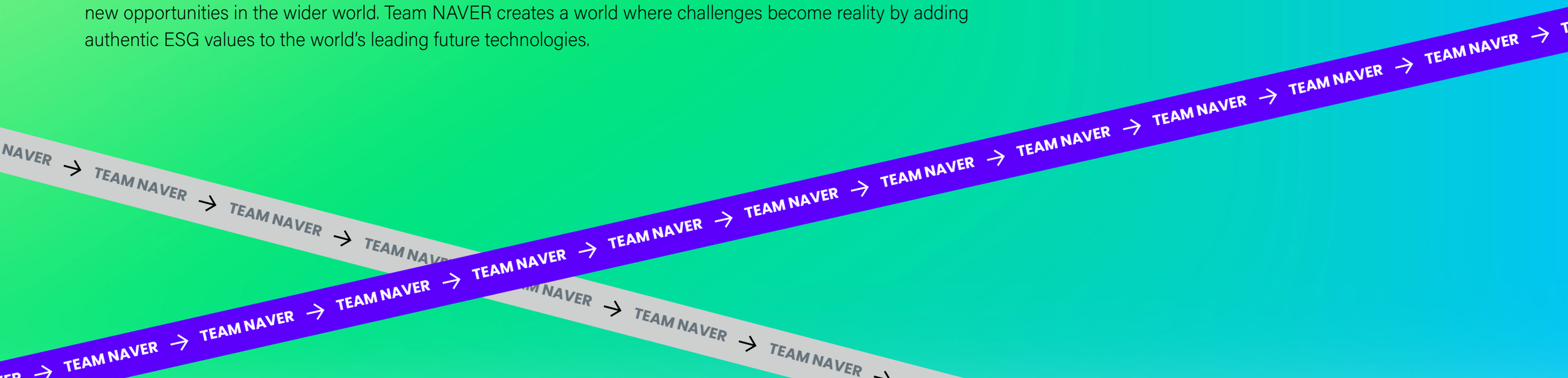
Shape the future together

Technologies create greater results when they are connected and merged than when they exist alone. That is why NAVER has focused on tech convergence in developing 1784 as a test bed for innovation. Not only the space where innovation takes place, but also the method exerts greater power when the value of connection and togetherness is added. At 1784, which constantly experiments with the convergence of cutting-edge technologies, startups and researchers are pooling their wisdom and capabilities for future innovations to come. in particular, approximately 100 researchers of the KAIST-NAVER Hypercreative AI Center launched in 2021 work in 1784. They collaborate closely on joint research on not only super-scale AI, but also on creative AI, which is known as a challenging new technology. NAVER shares the novelty of 1784 with its innovation partners, bringing together technologies and ideas in the space of 1784 and connecting them to innovation.

TEAM NAVER
Creating New Opportunities

At 1784, NAVER turns innovation into reality. NAVER creates new opportunities and possibilities through experiments, challenges, and convergence with NAVER's diverse technologies. However, the future that NAVER envisions cannot be reached through technological innovation alone. NAVER establishes and implements plans to create a sustainable future centered on ESG (Environmental, Social, Governance) from a long-term perspective.

With sustainability at the center, NAVER will strive to grow economically, socially, and environmentally in the right way. We will ensure that our technology and platform become a tool for sustainable value creation while helping innovators who are not afraid of taking on challenges, such as SMEs, startups, and creators, to meet new opportunities in the wider world. Team NAVER creates a world where challenges become reality by adding authentic ESG values to the world's leading future technologies.


TEAM NAVER → TEAM NAVER → TEAM NAVER →

LETTER TO STAKEHOLDERS

NAVER pursues to be a global tech platform that turns challenges into growth drivers for future innovative businesses based on trust and autonomy.

Greetings, I am Choi Soo-yeon, the CEO of NAVER Corporation.

First and foremost, I would like to express my sincere gratitude to all stakeholders of NAVER for your unwavering support and trust, even during the challenging times of the pandemic. As we enter a new era of post-pandemic, NAVER is elevating its sustainable corporate value and enhancing its global technological capabilities to achieve sustainable growth of its own.

NAVER continues to grow through continuous enhancement of its service capabilities and exploration of new markets. In 2022, NAVER showcased its capability by further strengthening competitiveness in key business sectors such as search platform, commerce, fin-tech, content, and cloud, resulting in robust growth. NAVER achieved an annual revenue of KRW 8,220.1 billion, representing a year-on-year increase of 20.6%, demonstrating its ability to consistently improve performance.

In particular, 2022 was a year in which NAVER, based on its successful domestic business experience, reorganized investment portfolios and business organizations to prepare for a greater leap as a global company. The acquisition of Poshmark, a North American C2C fashion commerce platform and the integration of cloud-related business units to target the global B2B market are significant challenges NAVER undertook to secure a solid foundation for expanding future markets. Furthermore, NAVER is preparing for the future by developing innovative AI, cloud, and robotics technologies. With an objective to become one of the most attractive platform for users in and outside of Korea, NAVER will continue to seek new opportunities for growth in the global market and provide efficient support by making sound judgment.

In order to actively pursue business expansion and outward growth, NAVER is also continuously enhancing sustainability and resilience of its operation. Since declaring ESG management in 2020, NAVER has actively promoted the internalization of ESG within the NAVER platform ecosystem through the establishment of an ESG Committee under the board of directors, the declaration of 2040 Carbon Negative and RE100, and the launch of a human rights management system.

In 2022, NAVER focused on analyzing and responding to the demands of stakeholders and potential risks to enhance sustainable values within the platform ecosystem. We introduced the "Connected Work" system to ensure the autonomy of our employees, improved ESG awareness among our partners in the supply chain, and strengthened service stability and the management of harmful contents for users. As a result, NAVER has established and maintained a steadfast trust from stakeholders.

In 2023, NAVER is reinforcing its ESG strategy to generate more tangible social value and mitigate adverse environmental impact in the long term. We renewed our ESG framework and assigned detailed KPIs for each of our 7 ESG management strategies. Based on this framework, NAVER will continue to improve and implement practices that contribute to both financial profitability and environmental and social value.

Furthermore, in early 2023, we announced a new three-year shareholder return policy, demonstrating our commitment to delivering value to shareholders. We also plan to cancel approximately 3% of our treasury shares over the designated three-year period, in an effort to maximize shareholder value based on growth and innovation to reward the long-standing trust shown by shareholders.

Going forward, NAVER remains committed to its vision of becoming a global tech platform that turns challenges into growth drivers for future innovative business based on trust and autonomy. We will make continuous efforts to achieve this goal and communicate our progress transparently. I would like to express my gratitude once again to all stakeholders who support NAVER's endeavors. I hope you will continue to be on-board with NAVER's meaningful decisions and valuable efforts for embracing bold challenges.

Choi Soo-yeon
President & CEO, NAVER Corporation

This character was created using **ZEPETO**, NAVER's metaverse.

NAVER AT A GLANCE

Company Overview

NAVER started out as a venture company in 1999 and has grown into a global ICT company. Through various services such as Korea's largest search portal NAVER, camera shooting and editing service SNOW, global storytech platform NAVER Webtoon, and metaverse platform ZEPETO, NAVER provides the value of connectivity to people around the world. Furthermore, NAVER continues to pursue research and development in future technologies such as artificial intelligence, robotics, and mobility, aiming to become a trusted technology platform in the global market. In addition, we take the lead in disseminating ESG values across our management practices, aiming to create a sustainable future that benefits a wider range of individuals.

Corporate Information

Name of Company

NAVER Corporation

Establishment

June 1999

CEO

Choi Soo-yeon

Head Office

NAVER 1784, 95 Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea

Employees

4,963

* As of December, 2022

External Evaluation

Credit Rating

Korea Investors Service	NICE Investors Service
Feb. 5, 2021	Feb. 5, 2021
AA+	AA+
Moody's	**S&P**
Mar. 17, 2021	Mar. 17, 2021
A3	A-

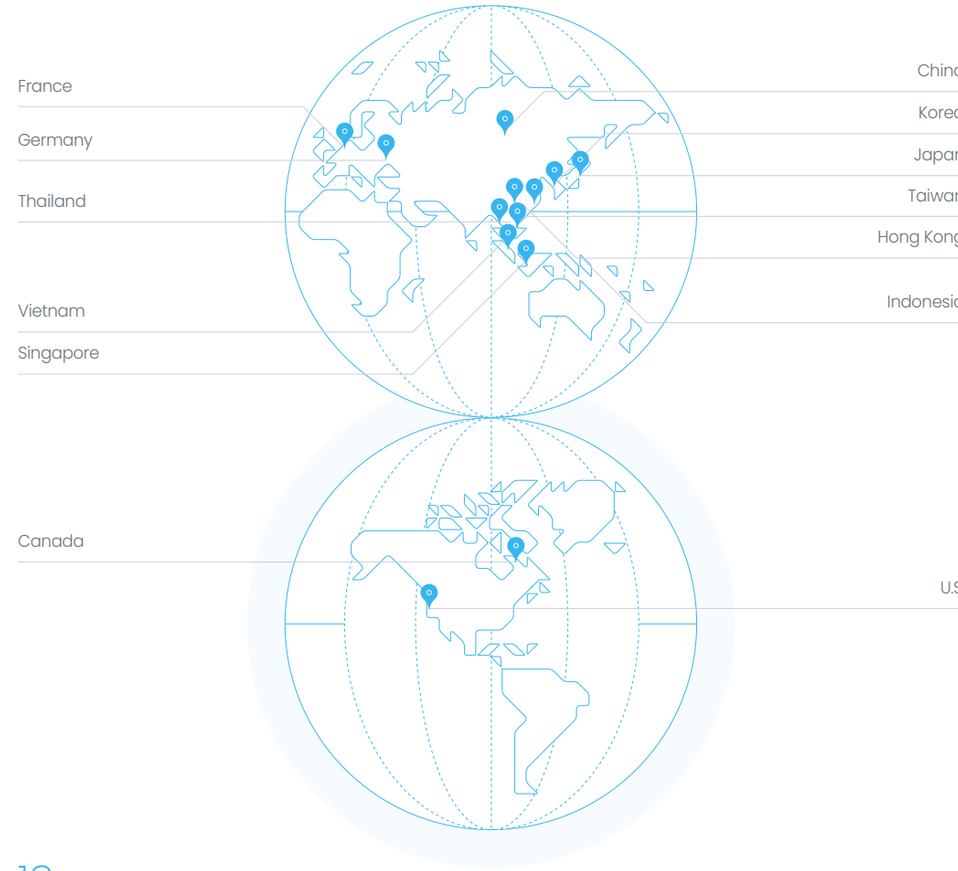
ESG[1)]

KCGS	MSCI
2022	2022
A	AAA

Sustainalytics
Dec. 2022
Global Top 12%

[1)] Based on Overall Grade

Global Network



13 countries across the globe

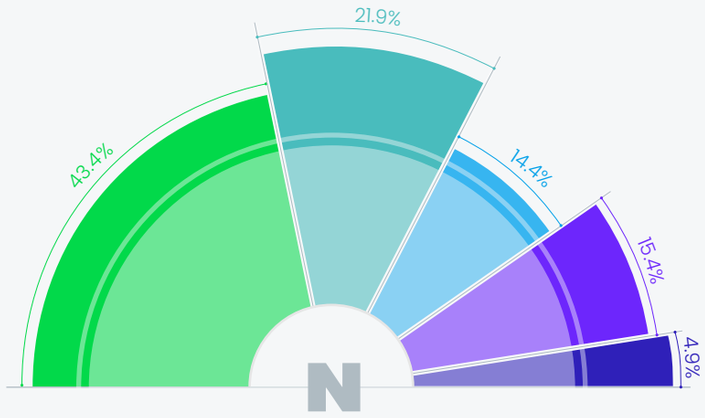
2022 AT A GLANCE

Financial Highlights

As the world headed toward a post-pandemic era in 2022, the e-commerce market experienced changes in its market environment, with ongoing uncertainties such as consumer sentiment downturn and global economic slowdown creating an unfavorable market landscape. Nevertheless, NAVER maintained robust growth based on its search, commerce, payment, and points ecosystem, which is the largest in Korea. Through the global expansion of its content business and strengthening of data platform line-up, NAVER achieved revenue of KRW 8.2 trillion, a 20.6% increase compared to the previous year. Operating profit recorded KRW 1.3 trillion, a year-on-year decrease of 1.6%, and adjusted EBITDA, which eliminates volatility such as stock compensation costs, decreased by 5.8% to KRW 1.8 trillion compared to the previous year.

Operating Revenue Portion by Business and Key Performance

(Unit: KRW billion)



Search Platform	3,568.0
Commerce	1,801.1
Fintech	1,186.6
Contents	1,261.5
Cloud	402.9

Operating Revenue

8,220.1 KRW billion

Operating Income

1,304.7 KRW billion

Net Income

673.2 KRW billion

Adjusted EBITDA for the Year

1,802.8 KRW billion

Total Assets

33,899.0 KRW billion

Key Financial Figures

	2020	2021	2022
Summarized Statements of Comprehensive Income			(Unit: KRW billion)
Revenue	5,304.1	6,817.6	8,220.1
Operating Expenses	4,088.8	5,492.1	6,915.4
Operating Income	1,215.3	1,325.5	1,304.7
Net Income	845.0	16,477.6 [1)]	673.2
Summarized Statements of Financial Position			(Unit: KRW billion)
Total Assets	17,014.2	33,691.0	33,899.0
Total Liabilities	8,759.1	9,663.6	10,448.7
Total Equity	8,255.1	24,027.4	23,450.3
Profitability Ratios			(Unit: %)
ROE	15.2	106.7 [1)]	3.3
Operating Margin	22.9	19.4	15.9
Net Margin	15.9	241.2 [1)]	8.2

* Based on consolidated financial statements

[1)] Due to the business integration of LINE and Z Holdings in the first quarter of 2022, the fair value of KRW 15.0 trillion (after tax) of investment stocks jointly held by A Holdings and LINE is reflected as an accounting profit without cash inflow or outflow.

Stock Information

	2020	2021	2022
Share Price Change			(Unit: KRW)
High	339,000	465,000	376,000
Low	144,000	285,500	158,500
Year-end	292,500	378,500	177,500
KOSPI Index (year-end)	2,873.47	2,977.65	2,236.40

* As of 2022 year-end

ESG Highlights

In 2020, NAVER established the 7 ESG management strategies, based on which it has been making continuous efforts to improve and identify new tasks to generate significant upshots in the areas of environment, society, and governance. In 2022, NAVER redefined the strategies, placing emphasis on the following areas – Establishing a platform for ESG value creation; Ensuring employee growth and satisfaction; Supporting mutual growth with the partners and local community; Maintaining and further improving transparency of corporate governance; Accomplishing 2040 Carbon Negative; Expanding the right to privacy and minimizing cybersecurity risk; and Conducting responsible business. Guided by these 7 ESG management strategies, we accelerated the pace of ESG management implementation.

Key Performance in 2022

SUSTAINABLE BUSINESS DEVELOPMENT

Number of Smart Stores on NAVER platform

550,000

R&D expenditure to sales[1)]

22.0%

Education and training costs for the year

approximately KRW 4.9 billion

Number of D2SF-invested startups[2)]

102

Size of Fountain Fund – Business platform

39.86 KRW billion

ESG VALUE CREATION

Total GHG emissions reduced

17,414tCO$_2$e

Renewable energy secured through the PPA for 1784

1.5MW

Global environmental initiatives

RE100, EV100, CDP

NAVER AI Ethics in practice

Published the 2nd NAVER-SAPI[3)] AI Report

Amount of Privacy Enhancement Reward (PER) rewarded to users

176% increase YoY

Win-Win Growth Index

Ranked the highest for 6 years in a row

Participation rate in the annual Employee Engagement Survey

76%

Connected Work – new work system

45% responded to have increased personal work productivity

Size of Fountain Fund – Public platform

58.97 KRW billion

* As of 2022 year-end

[1)] Based on consolidated financial statements

[2)] Cumulative performance at the end of 2022 after its launch in 2015

[3)] SAPI: SNU AI Policy Initiative

Key Milestones

Key Company History

2008
11 Transferred to Korea Composite Stock Price Index (KOSPI)

2010
04 NHN moved the company headquarters to Green Factory

05 Established NHN Culture Foundation (currently NAVER Culture Foundation)

2012
01 Merged three entities – NHN Japan, NAVER Japan, Livedoor – to establish NHN Japan

2013
03 Established LINE Plus, a LINE affiliate for its global business

06 Established GAK, an Internet data center of NAVER Corp.

08 NHN Corp. changed corporate name to NAVER Corp. and separated the game business

2014
07 NAVER Corp. acquired NAVER Business Platform's advertising and platform businesses

2015
04 Established Works Mobile as a business service subsidiary

2016
07 LINE Corp. dual listed on NYSE (New York) and TSE (Tokyo)

08 Established SNOW, Inc.

2017
01 Established NAVER Labs, Inc., specializing in future technology

05 Established NAVER Webtoon Corp.

06 Acquired Xerox Research Centre Europe (XRCE), an AI lab

Opened the Space Green at the Station F, a startup incubator

2018
02 Merged Camp Mobile

04 Established NAVER/LINE-HKUST AI Laboratory

2019
11 Established NAVER FINANCIAL

2020
06 Changed the name of the Connect Foundation to NAVER Connect Foundation

10 Changed the company name of NBP to NAVER Cloud

2021
03 Completed business integration of LINE and Z Holdings

05 Acquired Wattpad, the world's largest web novel platform

10 Merged search solutions

2022–2023 KEY HIGHLIGHTS

2022

MARCH
- Line Digital Frontier completed the acquisition of eBook Initiative Japan

APRIL
- NAVER FINANCIAL surpassed KRW10 trillion in cumulative "quick settlement" payouts

MAY
- NAVER Webtoon established a joint venture (JV) with CJ ENM and Studio Dragon
- NAVER Webtoon established a webtoon studio JV with TBS, a Japanese broadcasting company
- CLOVA Note launched in Japan

JUNE
- NAVER Cloud formed partnership with Samsung Electronics to commercialize Korea's first e-Um 5G (5G specialized network)
- NAVER FINANCIAL started the Smart Place Business Loan service for offline SMEs with Woori Bank and Jeonbuk Bank

AUGUST
- Became the first Korean Internet company to join RE100 and initiated the full-scale global ESG management

RE100

SEPTEMBER
- NAVER FINANCIAL formed partnership with Hana Bank for innovative finance

OCTOBER
- Became the first Korean Internet company to join EV100
- Announced the acquisition of Poshmark, the No. 1 fashion C2C platform in North America

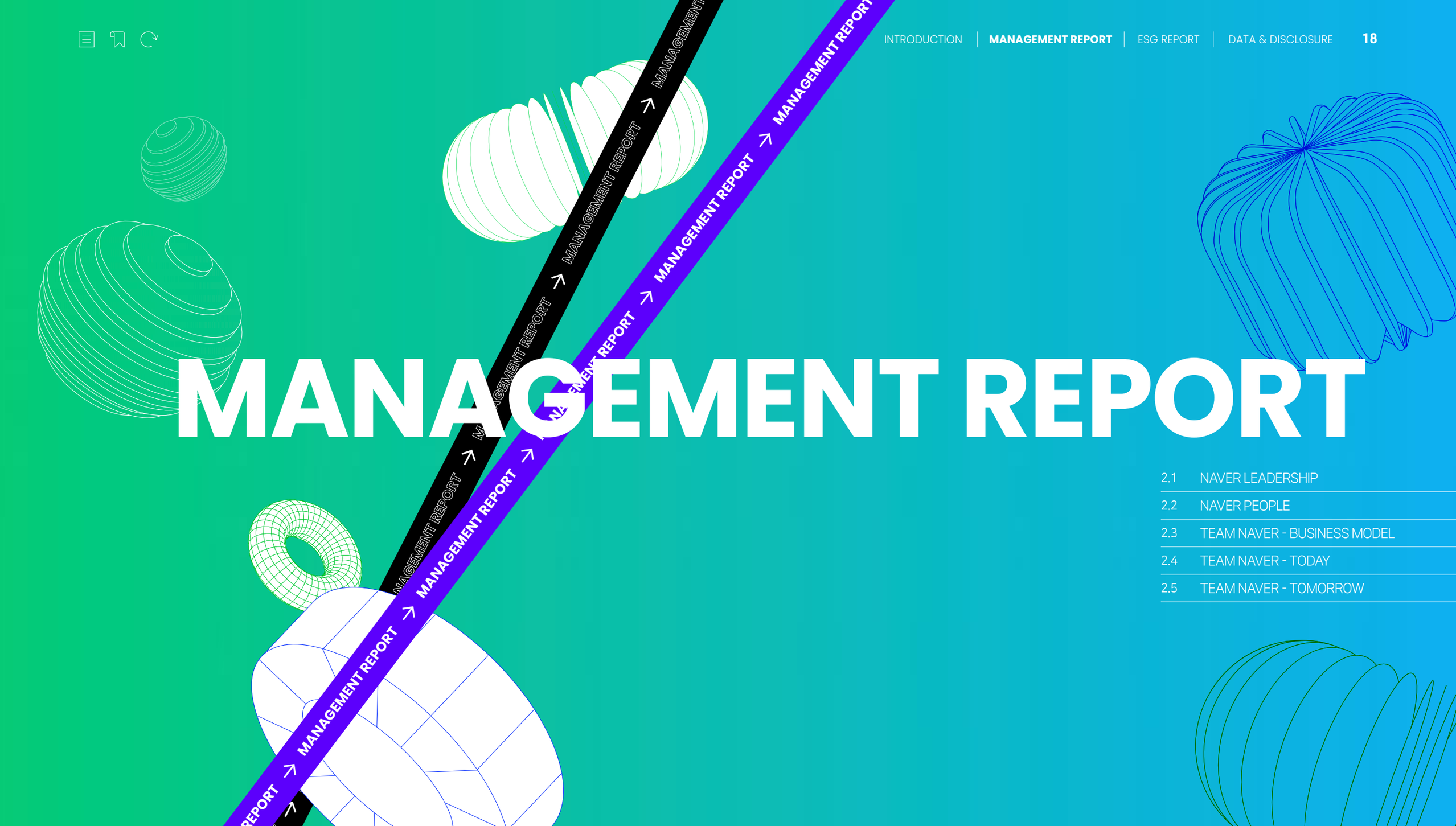
EV100

NOVEMBER
- NAVER FINANCIAL launched the NAVER Pay Loan Comparison service

DECEMBER
- Formed partnership with Samsung Electronics to develop AI semiconductor solutions
- Launched Guaranteed Arrival service based on technology, data, and NFA (NAVER Fulfillment Alliance)
- Formed partnership with SK Energy to develop future logistics technology

2023

January
- Acquired Poshmark, a C2C platform in North America

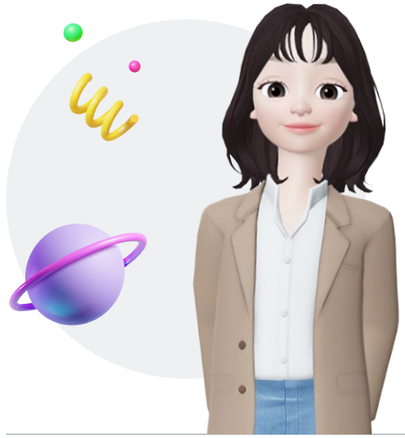


MANAGEMENT REPORT

2.1 NAVER LEADERSHIP
2.2 NAVER PEOPLE
2.3 TEAM NAVER - BUSINESS MODEL
2.4 TEAM NAVER - TODAY
2.5 TEAM NAVER - TOMORROW

NAVER Leadership

Management



Choi Soo-yeon

President & CEO

- Born in 1981
- Graduated from Seoul National University College of Engineering, Harvard Law School, LL.M
- 2005 NAVER (Formerly NHN) Communications and Marketing
- 2012 Yonsei University Graduate School of Law
- 2012 Lawyer, Yulchon LLC.
- 2019 Head of Global Business Support, NAVER Corp.
- March 2022 Appointed as the President & CEO of NAVER

Kim Nam-sun

CFO

- Born in 1978
- Graduated from Seoul National University College of Engineering, Harvard Law School JD
- 2007 Lawyer, Cravath, Swaine & Moore LLP (New York)
- 2012 Executive Director, Investment Banking, Morgan Stanley (Seoul, Hong Kong)
- 2017 Managing Director, Private Equity Investments, Macquarie Group (Seoul)
- 2020 Head of Corporate Development, Investment and M&A, NAVER Corp.
- March 2022 Appointed as the Chief Financial Officer (CFO) of NAVER

Board of Directors

Other Non-executive Director	**Byun Dae-gyu** Chairman of the Board of Directors, NAVER Corporation President & CEO, Humax Holdings Chairman of the Board of Directors, Humax	
Outside Directors	**Lee In-moo** Outside Director, NAVER Corporation Outside Director, GS Retail Professor, KAIST Business School	**Jung Do-jin** Outside Director, NAVER Corporation Professor of Accounting, Chung-Ang University Business School Member of Listing Committee, Korea Exchange Member of the National Accounting System Deliberation Committee, Ministry of Strategy and Finance Outside Director, LOTTE Himart
	Lee Keon-hyok Outside Director, NAVER Corporation CEO, Shinhan Financial Group Future Strategy Research Center	**Rho Hyeok-joon** Outside Director, NAVER Corporation Professor, Seoul National University School of Law
President & CEO	**Choi Soo-yeon** President & CEO, NAVER Corporation	
Inside Director	**Chae Sun-joo** Director and External/ESG Policy, NAVER Corporation	

Please refer to the "Composition of the Board" table in the "Ensuring Executive Compensation Transparency" section to find more information

* As of March 2023

NAVER PEOPLE

Q

NAVER challenges itself with questions on how to make the world a better place.
What is as important as growth to become a sustainable company? Can NAVER's technology and platforms serve as fertile ground for fostering sustainable value?

In today's global landscape, where awareness on ESG is growing and sustainability has become a new paradigm in corporate management, NAVER asks its ESG Working Group.
What efforts are being made to ensure NAVER's sustainability?

A

The Green Impact Team is responsible for establishing NAVER's medium to long-term ESG direction. Every year, it focuses on implementing the seven ESG management strategies, and continuously enhances these strategies by incorporating internal and external demands. Additionally, NAVER ensures that stakeholders surrounding the company can access and verify NAVER's efforts and accomplishments through the integrated report that discloses the achievements of each strategy.

Shin Sang-mi Leader_Green Impact(ESG)

The Environment Team is engaged in various activities to achieve NAVER's 2040 Carbon Negative strategy announced in 2020. In particular, we are doing our utmost to gradually reduce carbon emissions, leveraging power purchase agreement (PPA). Moreover, NAVER seeks to expand eco-friendly service opportunities by collaborating with not only those in NAVER platform, but also partners, companies, governments, and various sectors.

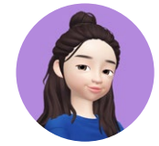
Lim Dong-a Executive Officer/Leader_Environment

The HR Team is constantly contemplating on how we can align the satisfaction of employees with the development of the organization, including human resources development, job-specific training, compensation, and welfare. When introducing new systems such as Connected Work, the team actively gathers employee opinions through surveys to incorporate them effectively. After operating the system on a trial basis, it conducts feedback surveys to measure the actual effectiveness and satisfaction level, constantly striving to find better alternatives.

Lee Jae-won Leader_HR

NAVER PEOPLE

A.



The Forest CIC is preparing various events that can contribute to eco-friendliness and sustainability through product purchases, reflecting the increasing interest in sustainability among e-commerce users on NAVER Shopping platform. Furthermore, in order to position NAVER as a "green commerce platform", we make a wide range of efforts, including reducing carbon emissions through the implementation of eco-friendly logistics platforms, offering support for utilizing eco-friendly packaging materials, and providing educational resources for small business sellers. On Environment Day in 2023, we published the Green Commerce Report to communicate these achievements.

Yu Seo-young_Forest CIC

Launched in 2016, NAVER's Project Flower is a core campaign that aims to discover the value of SMEs and creators and support their sustainable success. The ultimate objective is to foster a fountain effect whereby social value flourishes through the growth and success of individuals operating within NAVER's ecosystem. On the NAVER platform, we actively discover and support SMEs and creators, aiming to realize the value of diversity. By doing so, we strive to create a social impact by fostering their growth, ultimately contributing to the sustainability of our society.

Shin Jee-mhan Leader_Project Flower

We believe NAVER's sustainability starts with trust of its users. To safeguard that trust, NAVER always strives to prevent and protect users against their rights infringements. One notable initiative in this regard is NAVER Green Internet campaign conducted by Green UGC. This includes protecting children and teenagers from harmful content and detecting harmful content such as malicious comments to ensure a safer environment, even during cases of disasters or emergencies. Furthermore, we are committed to addressing serious social issues such as copyright infringement and personal information breaches through various efforts including technological measures.

Im Nam-jung Leader_Green UGC

NAVER is an IT company that thrives through connections with various stakeholders such as partners and users. Therefore, minimizing risks and ensuring compliance are essential to facilitate interactions in a safe environment. Against this backdrop, NAVER established Compliance team in 2021, consisting of experts in labor, safety, human rights, and legal matters. We engage in various activities to prevent corruption and ensure legal compliance both internally and externally by providing ethics education for NAVER employees and conducting integrity surveys to assess ethical awareness.

Lee Hui-man Executive Officer/Leader_Compliance

TEAM NAVER – BUSINESS MODEL

CAPITAL INPUT

FINANCIAL

- Became the first Internet company in Korea to issue a sustainability bond (USD 800 million)
- Corporate bond credit rating of AA+[1]
- Had a total of 393 investor meetings and external dialogues in 2022

BUSINESS

- Appointed new management to further expand global presence and overhaul management system
- [Korea] Sought to maximize IP value chain synergy through the acquisition of web novel platform Munpia; Announced Announced the integration of AI technology and B2B business organization centered around NAVER Cloud
- [Japan] Strengthened influence in the Japanese digital manga market through the acquisition of eBOOK Initiative Japan
- [North America] Announced the acquisition of Poshmark, No. 1 C2C fashion platform in North America (acquired January 2023)

INTELLECTUAL

- R&D expenditure: KRW 1,809.1 billion, a year-on-year increase of KRW 154 billion
- R&D expenditure to sales: 22%
- Conducted joint AI research with prestigious domestic and international research institutions
  - Seoul National University, KAIST, Vietnam's HUST, PTIT, Germany's University of Tübingen, Canada's University of Toronto, etc.

HUMAN

- Education and training costs for the year: approximately KRW 4.9 billion[2]
- Implementation of "Connected Work," a new work system based on employee participation
- Participation in "Work-Life Balance Campaign" to support employees' work-life balance
- Provided stock grants to all employees[3]

SOCIAL

- Became the first platform company in Korea to offer an online ESG self-assessment service for suppliers
- No. of partners signed a fair trade agreement: 153
- NAVER Connect Foundation provided education and support related to AI
  - Boostcamp AI Tech, 1784 School Revolution
- Raised the Fountain Fund worth KRW 98.8 billion to support SMEs and creators
- Donated KRW 900 million to aid in national disasters and emergencies

NATURAL

- Total energy consumption: 1,854 TJ
- Became the first Korean Internet company to join RE100 to partake in the global movement for energy transition
- USD 770.64 million: Amount of NAVER Sustainability Bond allocated to green category[4]
- Amount of paper documents replaced by NAVER e-document service (2019-2022): About 710 million (Including Virtual Assistant Service usage)

WHAT WE CREATE

1 **No. 1 Internet search portal in South Korea**
Korea's top search platform that connects the ideas and interests of 40 million users every day

2 **Trendy shopping service that covers both offline and online**
A service that provides a simple and efficient shopping experience to sellers and users within the NAVER ecosystem and enhances the satisfaction of users searching for products online based on product DB management and advanced search using AI technology

3 **Convenient purchase experience to users, and increased sales for business operators**
Conveniently manages shopping, payment, and delivery without membership registration at various affiliates using NAVER ID, provides an easy payment experience even for digital content, and expands to provide innovative financial services based on differentiated technology and data

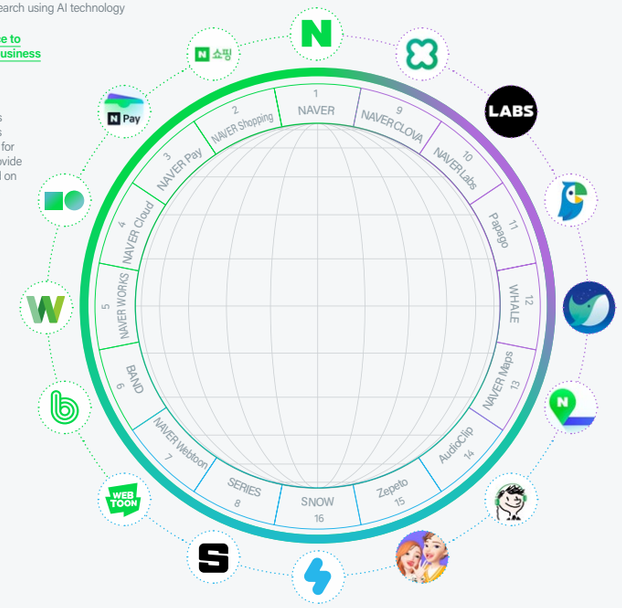
4 **Cloud computing for business, optimized for each industry**
Korea's representative public cloud that encompasses the areas of IaaS, PaaS, and SaaS

5 **NAVER's diverse services for work**
A collaboration platform service that integrates messaging, email, calendar, drive, address book, file sharing, and voice/video calls, centered around mobile environment

6 **Mobile community platform**
A mobile community platform that supports various forms of group activities depending on user preferences, such as family, couples, friends, school, clubs, work, and study groups

7 **Brings new fun to everyday life**
Ever-evolving storytech platform, expanding its reach to publishing, movie, shows, game, and others in the content industry at home and abroad on the back of loyal fans and strong IPs

8 **Content business platform**
A paid content platform that offers around 60 thousand genre novel and cartoon contents for diverse tastes



9 **New platform for the future**
An integrated AI platform that combines technologies which use human senses, such as voice and image recognition, neural machine translation, and conversational engine

10 **In charge of new technologies of NAVER**
Reliable lab opening a new chapter of new technologies, such as AI, AR, robotics, and autonomous driving, in collaboration with global research specialists

11 **Reliable translation platform**
An automatic translation platform that became more accurate with the application of neural machine translation (NMT) technology

12 **Completely new web browser**
Browser that "can be easily used by anyone," featuring unique, convenient functions, such as omni-tasking, quick search, and space

13 **One app for all your navigation needs**
Public transportation, vehicle, bicycle, and pedestrian paths as well as GPS navigation! NAVER Maps delivers the desired destination all at once!

14 **Audio content platform**
A content platform where various types of content, such as lectures, language learning materials, parenting guides, web novels, audio dramas, audiobooks, ASMR, live broadcasts by creators, and can be enjoyed in audio format.

15 **Surprising space in the virtual world for creators**
A metaverse platform where Generation Z users create everything they imagined with their friends in various worlds based on their own 3D avatars in the virtual world.

16 **A camera-based AR platform that makes everyday life special**
A fun camera-based AR platform that leads the trend of teenage users

CAPITAL OUTPUT

FINANCIAL[5]

- Total assets: KRW 33,899.0 billion
- Revenue: KRW 8,220.1 billion:(+20.6% YoY)
- Operating income: KRW 1,304.7 billion (-1.6% YoY)
- Net income: KRW 673.2 billion
- Highest share price of the year: KRW 376,000
- Cash dividends for 2022: KRW 137,072 million

BUSINESS[6]

- Year-on-year revenue growth rate by business: Search Platform 7.9%, Commerce 21.0%, Fintech 21.2%, Contents 91.3%, Cloud 5.3%
- [NAVER] 48 million: Active users of NAVER Main, 35 million: DAU of NAVER Mobile Main
- [Commerce] 20 million+: No. of weekly visitors to NAVER shopping, 9 million+: Cumulative NAVER membership subscribers
- [Fintech] 30 million+: No. of NAVER Pay members
- [Contents] 170 million: MAU of NAVER's storytech platforms, 100 million+: No. of Zepeto users
- [Cloud] 3.2 million: No. of downloads of CLOVA Note

INTELLECTUAL

- Around 3,868 cases of intellectual property rights in Korea and abroad
  - 2,663 patents, 954 trademark rights, 251 designs
- Presented 100 research papers at world leading AI conferences[7]
- 13 research papers were adopted at machine learning ICLR 2022 [8]
- A total of 14 papers and 13 papers were presented at the Computer Vision Association CVPR 2022 and ECCV 2022, respectively
- Unveiled ARCVERSE, a metaverse-based ecosystem

HUMAN

- Received positive responses from the employee engagement survey (increased by 10% on average compared to 2021)
- 45% responded to have increased personal work productivity in the effectiveness survey
- Percentage of female leadership stood at 30%
- 100% of eligible employees are granted stock grants

SOCIAL

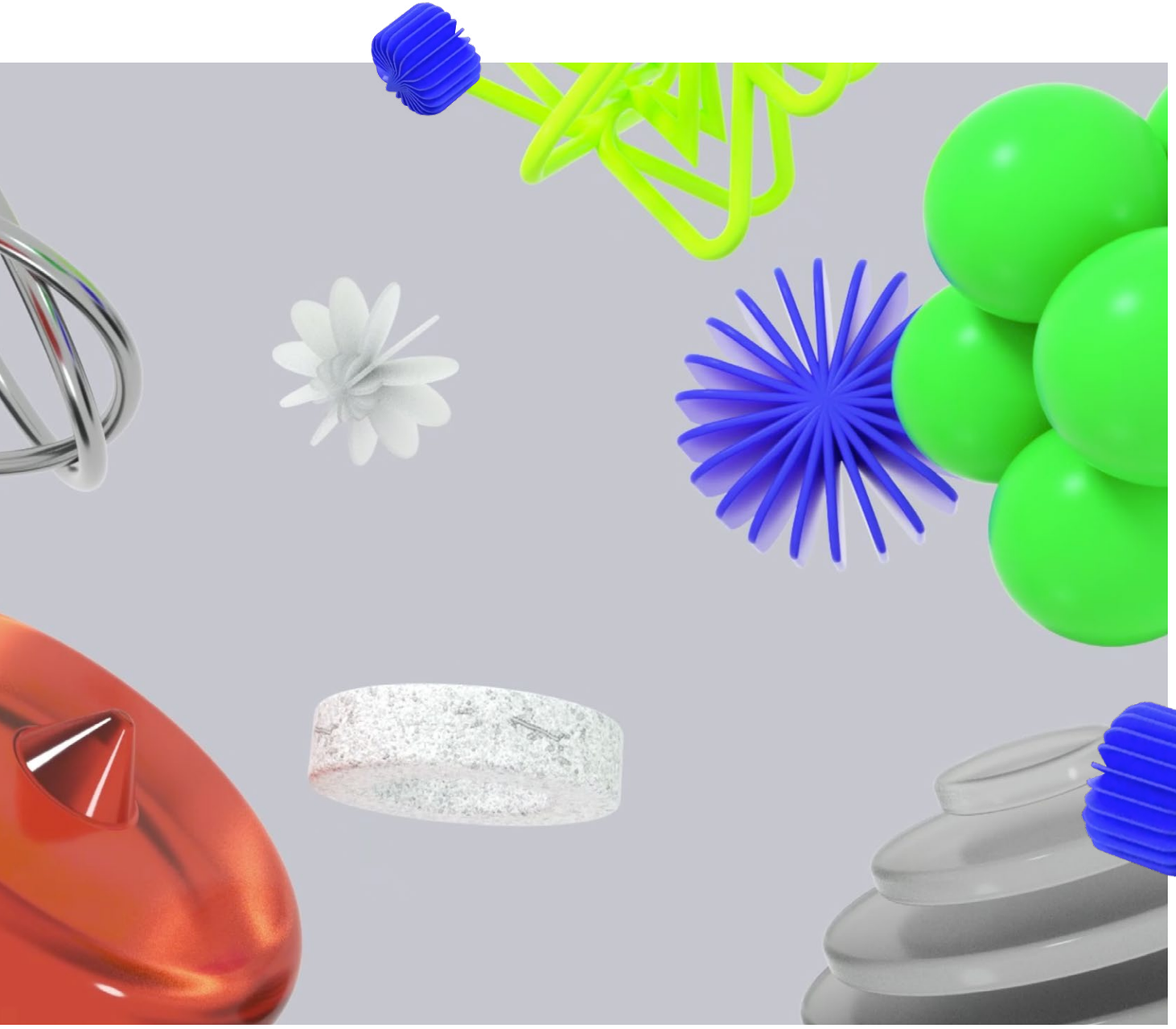
- Ranked the highest in the Win-Win Growth Index Evaluation for the sixth consecutive year, for the first time in the industry
- 2.27 million companies registered in Smart Place, generating a sales increase effect of KRW 3.3 trillion
- 3.1 times increase in average customer inflow when local SMEs use the advertising solution
- 1.8 million donors participated in donation through Happybean with amount of KRW 26.5 billion

NATURAL

- Total GHG reduction: 17,414 tCO_2e
- Total renewable energy consumption: 5,490 MWh
- Generating an effect of protecting 24,000 trees through usage of electronic documents

[1] Based on NICE Investors Service
[2] Separately calculated educational and training expenses for employees of NAVER Corporation based on the educational and training expense criteria in the Business Report (language, job-specific, general education, recruitment costs) since 2022
[3] Paid twice a year (once every 6 months), depending on a working period during the half year
[4] Cumulative expenditure as of March 2023

[5] Based on consolidated financial statements
[6] As of December 2022
[7] ICASSP, Interspeech, ICCV, etc.
[8] ICLR 2022: International Conference on Learning Representations which was chosen by Google Scholar as the top-ranking global AI/ML conference



TEAM NAVER – TODAY

NAVER's innovation and evolution have been constantly on the rise since 1999, when the search portal "NAVER" service was launched, followed by relentless efforts for the past 20 years. As a result, NAVER has grown into a global ICT company with a diverse business portfolio, including commerce, fintech, content, and cloud, in addition to search. Moreover, leveraging its cutting-edge technology, such as cloud computing, AI, and robots, NAVER is accelerating the pace of innovation.

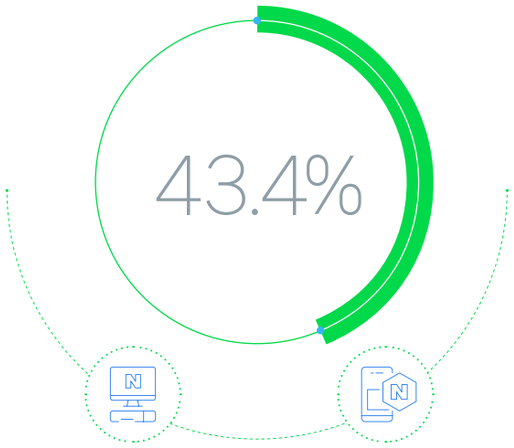
NAVER's spirit of challenge and transformation have been embodied in the solid growth of our new businesses such as commerce, fintech, content and cloud, based on which we achieved a new milestone in 2022 by becoming the first Korean Internet company to exceed KRW 8 trillion in annual revenue.

SEARCH PLATFORM

As Korea's leading web portal, "NAVER" connects people with diverse interests through continuous enhancement of its search quality. NAVER is the largest search & advertising platform in Korea that continues to grow by introducing a product lineup that encompasses the diverse needs of users and advertisers.

Major Achievements of Search Platform in 2022

Revenue Portion



2022 average of active users of NAVER Main

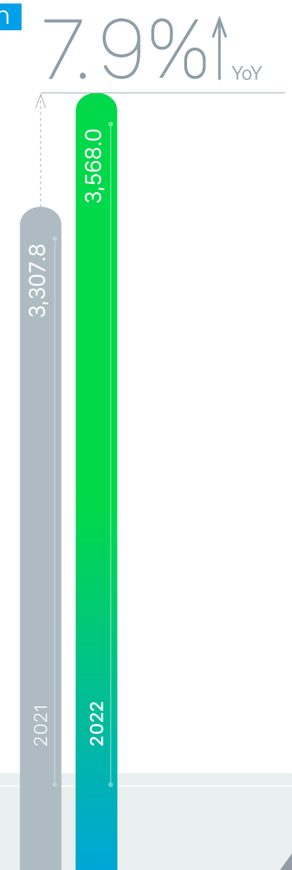
48 million

2022 average of daily active users of NAVER Mobile Main

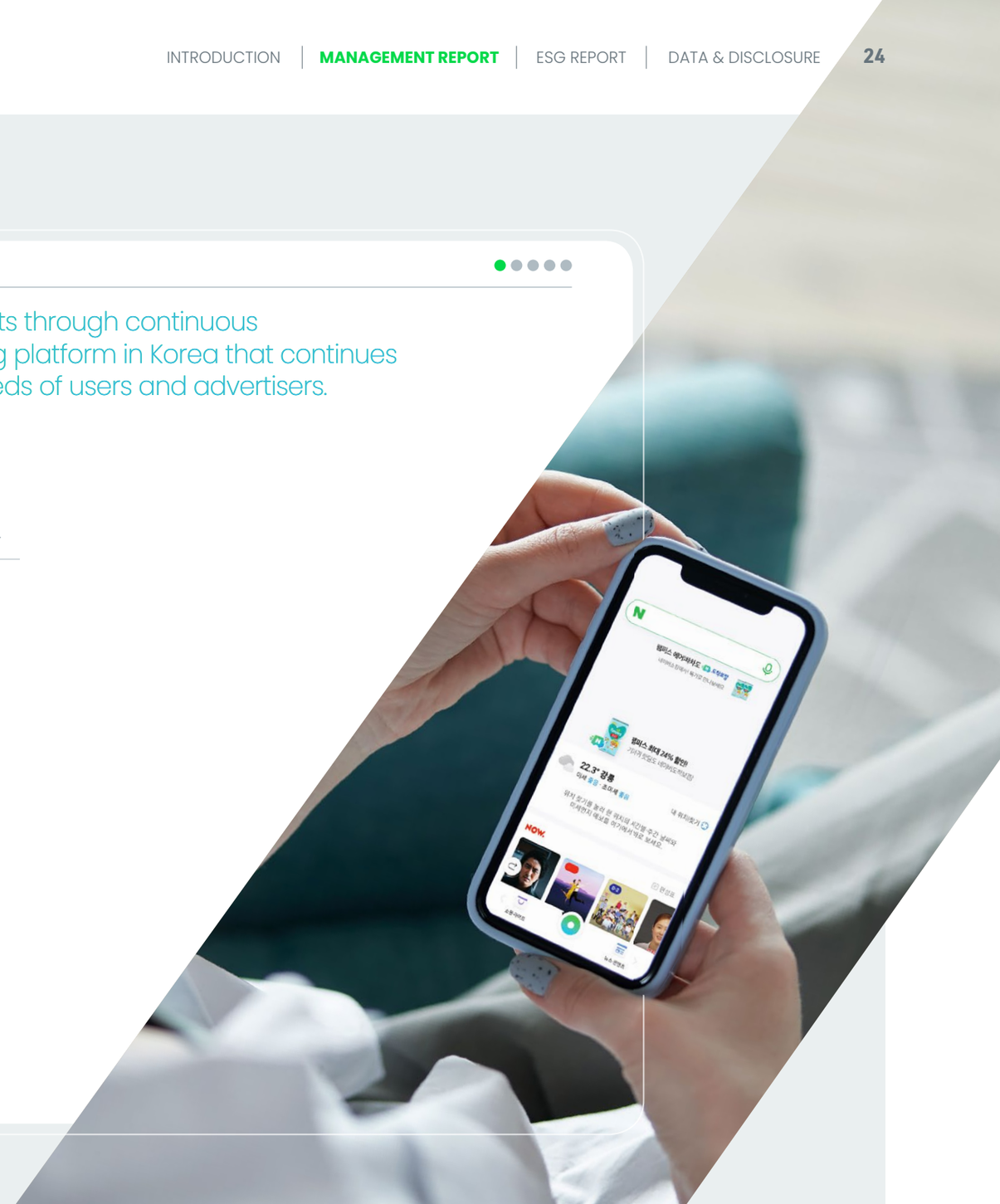
35 million

Revenue & Year-on-year Growth of Search Platform

(Unit: KRW billion)



* As of December, 2022



Our search platform consists of search advertising and display advertising sectors. Search advertising is a business that promotes business activities by connecting users' information search needs through NAVER, and continues to grow through product improvement, category expansion, and search advancement using AI technology. Display advertising provides products that enables our clients to expose their messages to users. It is demonstrating stable performance owing to a variety of efforts to enhance advertising effectiveness, such as performance-based advertising products and the launch of video and premium products in response to evolving advertiser demand, along with the advancement of the display platform.

NAVER Search Platform provides products that enable a variety of brands and SMEs to build their businesses, so that they can naturally integrate into users' content consumption, search, and shopping flows. In particular, it is evolving into a marketing solution platform that continuously attracts creators and advertisers by strengthening its product lineup that can respond to the changing demands of advertisers.

In 2022, although the global economic recession affected consumer sentiment and led advertisers to cut their budgets, we strived to improve quality for advertisement optimization and introduce new products tailored to new needs in the Search sector while strengthening our competitiveness as a marketing platform by launching premium products and making a variety of efforts to strengthen our media power in the Display sector. As a result, Search Platform sales recorded KRW 3,568.0 billion in 2022, 7.9% increase from the previous year.

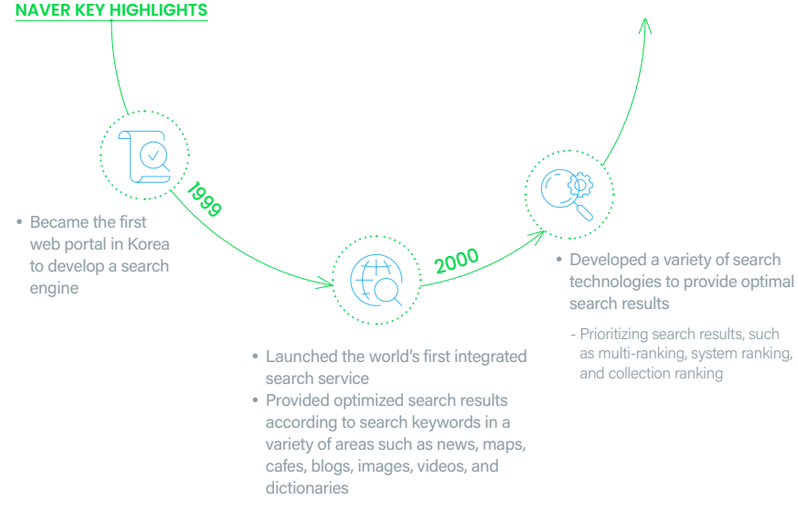
NAVER Main

Evolving into an advanced AI search platform from Korea's first search engine

NAVER is making a variety of efforts to improve users' satisfaction with its services. At the end of 2021, we introduced Knowledge Base that understands users' intentions and provides them in the form of answers, and a Knowledge Snippet that summarizes and organizes the content of the main text in search results. We were able to witness increase in users' search satisfaction level and confidence by applying expanded services.

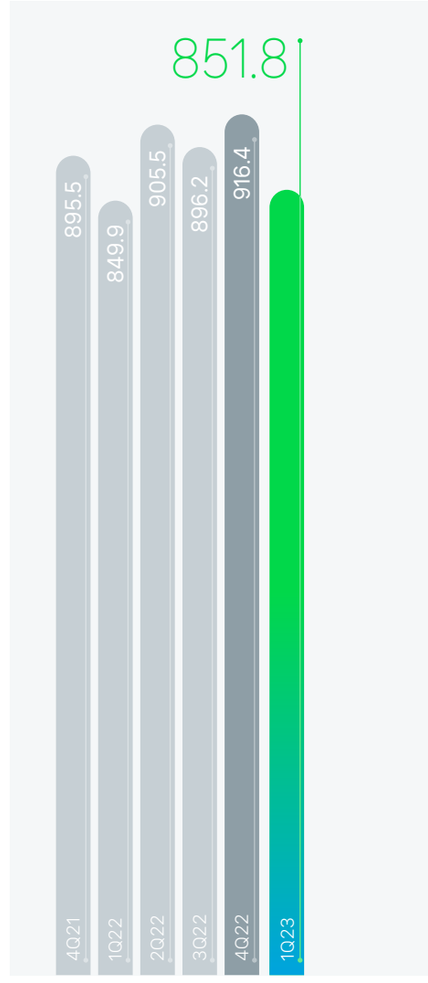
In response to new search trends such as generative AI, which has been receiving a lot of attention recently, we are conducting internal experiments to improve the quality of search results and users' content consumption experience. In 2023, we plan to introduce "HyperCLOVA X," NAVER's unique generative AI search service, on the back of Korea's largest search data and global top-tier AI technologies.

NAVER KEY HIGHLIGHTS



QUARTERLY REVENUE

(Unit: KRW billion)



SEARCH PLATFORM

NAVER Search Technology

Providing customized search results upgraded with unrivaled technology

NAVER's main search technology "AiRSearch" is embodied in AiRS, AiTEMS, and AiRSPACE, which are NAVER search brands that combine a variety of AI recommendation technologies for content, shopping, and local areas, respectively, to provide personalized search results that meet users' search intentions quickly and accurately. Customized search results selected by AiRSearch are provided in the form of "Smart Block." As Smart Block, which provides customized search results categorized by topic when users search for keywords, was expanded to local areas such as domestic travel spots and gourmet restaurants as well as shopping areas such as fashion, commercial queries increased by 15% compared to the previous year's average. In 2023, we plan to expand the application areas of Smart Block to travel, health, finance, etc., expanding the coverage of Smart Block within the entire integrated search to 40% in an effort to seek out new monetization opportunities.

AI-BASED RECOMMENDATION SYSTEM

Providing customized search results considering user environment and context based on AI-based personalized search and self-developed AI technologies such as Green Dot, deep learning-based ConA, and semantic tagging

AiRS | AiTEMS | AiRSPACE

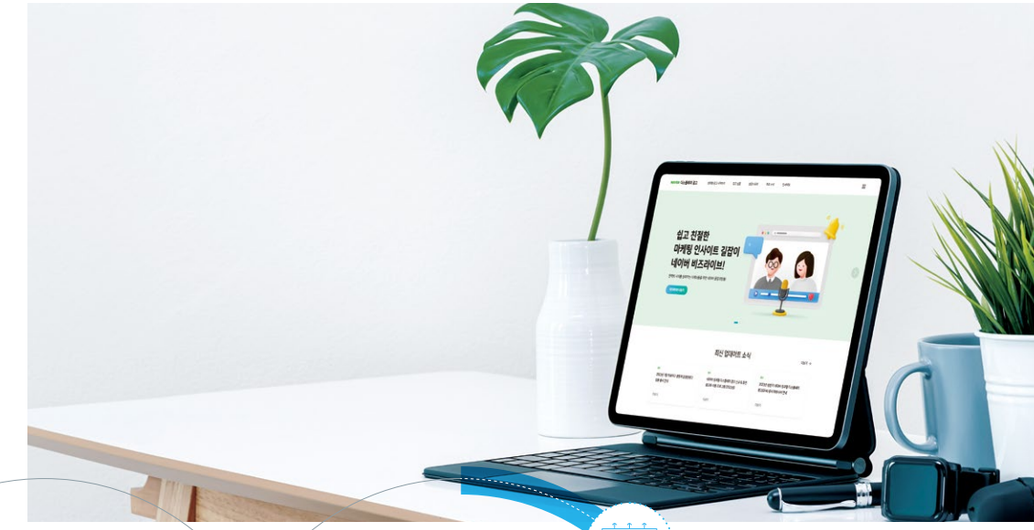
NAVER Advertising

Advertising service for all users, advertisers, and NAVER

Search advertising and display advertising are NAVER's main business areas. Based on the country's leading portal platform, NAVER is leading stable growth with solid performance in search advertising and display advertising. We are continuously advancing the platform to provide services that satisfy both platform users and advertisers while striving to improve search and content quality by reorganizing services in a timely manner and improving the quality of advertising UI to meet user convenience.

As Korea's No. 1 search platform, NAVER has been leading the domestic portal market for a long time. Furthermore, we deeply understand users through our long-term accumulated data and provide them with customized search results. NAVER is now positioning itself as an integrated platform that provides a variety of linked services such as NAVER Pay, Smart Store, and NAVER Map.

Recently, we introduced a variety of services to the market for effective advertisement through platform advancement such as advertising automation and optimization features. In 2023, despite the uncertain external environment, NAVER Advertising plans to seek continuous sales growth by discovering new sites, launching new products in response to evolving advertiser demand, and upgrading its advertising platform.



SEARCH ADVERTISING

Search marketing that provides information on sellers' site, product, or content to NAVER search users

8.7%↑

Achieved year-on-year growth of 8.7% thanks to business query growth and product improvement

DISPLAY ADVERTISING

6.2%↑

Achieved year-on-year growth of 6.2% following the expansion of new space and premium materials

PERFORMANCE-BASED DISPLAY ADVERTISING

Display advertising that can realize high advertising efficiency through a variety of targeting strategies and real-time ad operations

GUARANTEED-TYPE DISPLAY ADVERTISING

Display advertisements exposed on NAVER space for a set period using a variety of materials and techniques

* As of December, 2022

COMMERCE

NAVER is creating an e-commerce ecosystem in which users, SMEs, and brands can form healthy win-win relationships. We will provide an optimal environment for business based on NAVER's technology and data, while making steady efforts to continuously innovate its commerce platform and secure growth engines.

Major Achievements of Commerce in 2022

Revenue Portion

Cumulative number of NAVER Membership subscribers

9 million+

Cumulative number of Smart Store sellers

550,000

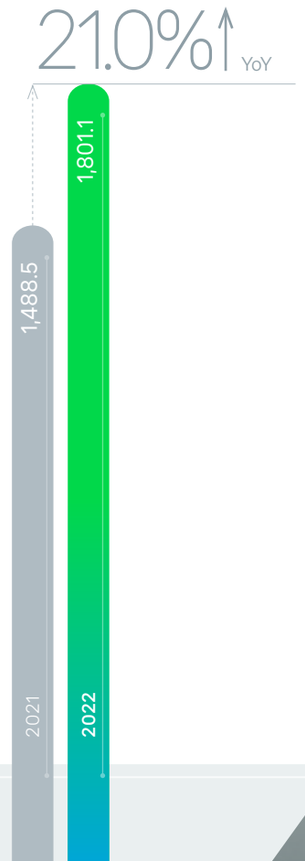
Annual transaction amount of Brand Store in 2022

KRW 3.2 trillion

* As of December, 2022

Revenue & Year-on-year Growth of Commerce

(Unit: KRW billion)



COMMERCE

NAVER's commerce business is growing with brands and a variety of sellers, including SMEs, while also providing differentiated shopping experiences to users. We are concentrating our efforts on creating a commerce ecosystem by strengthening new vertical commerce services such as Brand Store, Shopping Live, NAVER Local Marketplace Grocery Delivery, and C2C platform KREAM while responding to a variety of needs of users and sellers by providing Travel (airline, hotel, tour), NAVER Smart Place reservation services, and fast delivery services through a data-based fulfillment platform jointly established with our logistics partners.

In 2022, NAVER accelerated its growth by providing new value to both sellers and users through innovation in shopping service. Most notably, despite the slowdown in the domestic online commerce market due to the endemic, NAVER Smart Store has consistently exceeded the market growth rate based on its diversified services such as Brand Store, travel and reservation services, and KREAM. In 2022, commerce sales grew 21.0% year-on-year to KRW 1,801.1 billion.

In October 2022, NAVER announced the acquisition of Poshmark, a C2C platform in the US fashion sector, and completed the acquisition process in January 2023. Poshmark is a dominant player in the US C2C market, which is expected to grow rapidly. NAVER's acquisition of Poshmark is a significant step toward establishing a new retail format called "community commerce".

Through the acquisition of Poshmark, NAVER seeks to establish a bridgehead in the North American e-commerce market, secure a micro community network on the back of Millennials and Gen Z, and expand the Team NAVER user base and community area. The acquisition is also expected to become one of the future growth engines leading NAVER's mid to long-term growth. In addition, we plan to promote Poshmark's growth by introducing NAVER Smart Lens, LIVE Commerce, search, advertising, and seller tools, which boast unrivaled technological prowess while creating synergy with NAVER's core businesses.

NAVER SHOPPING

The most well-known commerce platform in the contactless era based on outstanding technology

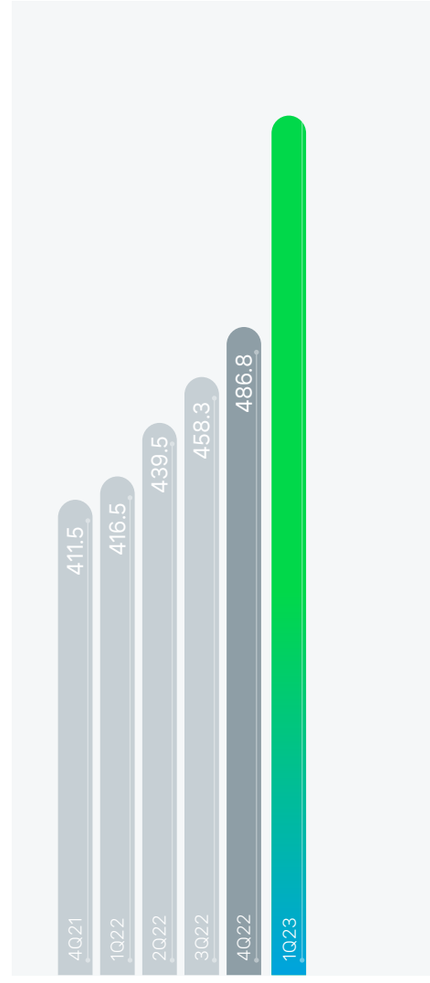
As of December 2022, 550,000 stores are selling 1.4 billion products in NAVER Shopping. With the largest selection of online products in Korea, NAVER Shopping provides a variety of services such as search, recommendation, and price comparison based on its top notch technology and accumulated data. Most notably, with regard to the NAVER Brand Store, the number of franchises doubled from the previous year to 1,351 as of the end of 2022 while their transaction value grew 73% to KRW 3.2 trillion. NAVER intends to upgrade NAVER Brand Store into a direct to customer (D2C) platform with the technology and know-how that have attracted 550,000 smart stores. To this end, NAVER will support the growth of brands and expand services through differentiated solutions such as Guaranteed Arrival and brand search, which is expected to lead to the creation of a D2C ecosystem led by NAVER.

WEEKLY ACTIVE USERS OF NAVER SHOPPING IN 2022

20 million +

QUARTERLY REVENUE

(Unit: KRW billion)



COMMERCE

NAVER Plus Membership

Subscription-based service to enhance user benefits

In 2020, NAVER introduced the "NAVER Plus Membership" – a subscription-type service that rewards up to 5% of shopping and reservation payments and offers a variety of digital content benefits, aimed at further enhancing user benefits. On the back of such differentiated benefits, the cumulative number of subscribers exceeded 6 million within 18 months of launching the service. As of 2022, it has 9 million subscribers. Thanks to the lock-in effect after membership registration, the amount of payment per user is continuously increasing regardless of the size of use along with increased activities of users. In fact, the transaction amount of NAVER Pay per person with the Membership is about twice higher than that of general members while the NAVER Plus Membership members tend to use NAVER Shopping, NAVER Pay and content services more actively. In addition, we launched a regular subscription membership service, to support users' various purchasing methods. It has been well received by users, further improving their shopping convenience, and thus its cumulative number of users has been increasing more than six times within six months since its launch.

In 2022, we launched the "NAVER Plus Membership Student" service targeted Millennials and Gen Z. It is being positioned as an essential membership for college students as it provides college students-only benefits in addition to the strong membership rewards and benefits. Going forward, NAVER plans to launch a variety of digital membership experiments targeting Millennials and Gen Z, who are known as digital natives.

Guaranteed Arrival

Unique service enhancing store's delivery competitiveness with technology, data, and NFA

"NAVER Guaranteed Arrival" is a designated-day delivery service introduced by NAVER in December 2022. It is a more advanced version of the faster delivery service provided through collaboration with NFA (NAVER Fulfillment Alliance) partners, and it is a solution that meets the needs of both users and partners based on the logistics data platform, which was introduced after a year of development efforts. Based on a 3P partnership, it provides logistics solutions to sellers and fast delivery and guaranteed arrival services to customers through the infrastructure of NAVER partners. Sellers can directly manage inventory and sales while establishing marketing strategies based on the data provided by NAVER. Notably, since it is also enables data analysis related to shipping, sellers have a high degree of autonomy throughout the sales process.

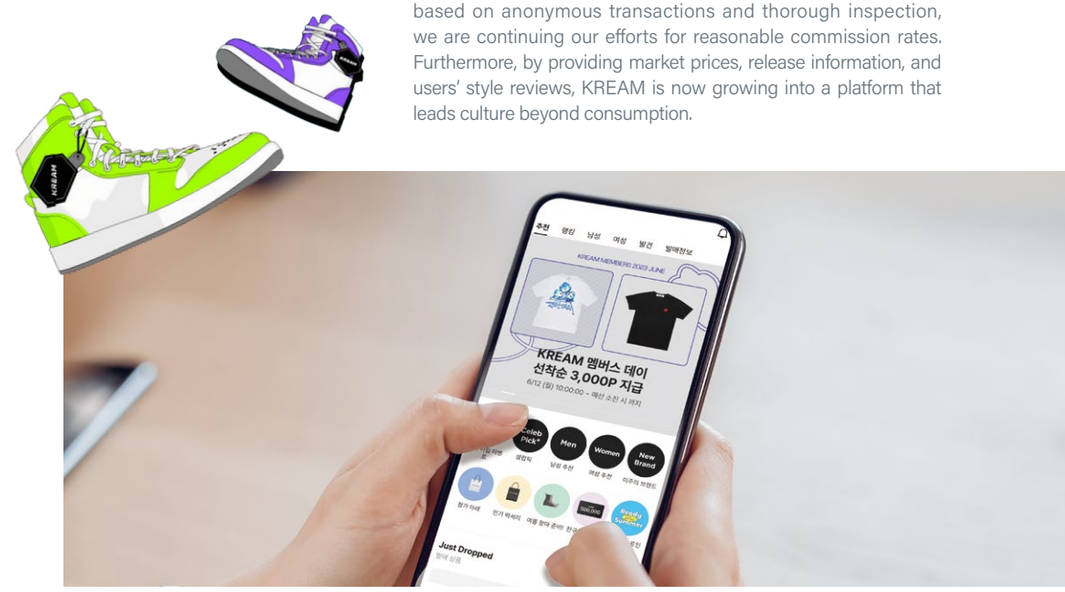
NAVER Guaranteed Arrival connects the logistics process by linking the NAVER Shopping platform, the fulfillment operator (logistics company), the delivery operator (courier company), and user data through the logistics data platform built by NAVER to present the user with the calculated exact delivery arrival date. NAVER guarantees the delivery date so that both buyers and sellers can trust the prediction accuracy, for products whose delivery completion date is later than promised, NAVER pays the buyer compensation for the delay.

Leveraging such a high degree of buyers' discretion and the differentiated competitiveness of accurate delivery dates, NAVER Guaranteed Arrival is growing rapidly. As of March 2023, more than 300 Brand Stores, accounting for 20% of total, are using NAVER Guaranteed Arrival. Moving forward, we continue to create new opportunities and strengthen our position as a D2C brand platform through technology-based experimentation with more brands.

KREAM

Limited-edition resell platform that promotes interactions based on products and content

In March 2020, NAVER turned its eyes to a new consumption trend called "resell" spreading mainly among Millennials and Gen Z, and introduced "KREAM", a limited-edition transaction platform between individuals. Starting with sneakers, we are expanding our resell product categories to include luxury, fashion clothing, and miscellaneous goods. We have launched "Brand Pavilion" in which variety of brands preferred by Millennials and Gen Z can meet users directly on the KREAM platform. The number of stores is increasing and the transaction amount is growing rapidly. Following the establishment of a safe transaction system based on anonymous transactions and thorough inspection, we are continuing our efforts for reasonable commission rates. Furthermore, by providing market prices, release information, and users' style reviews, KREAM is now growing into a platform that leads culture beyond consumption.

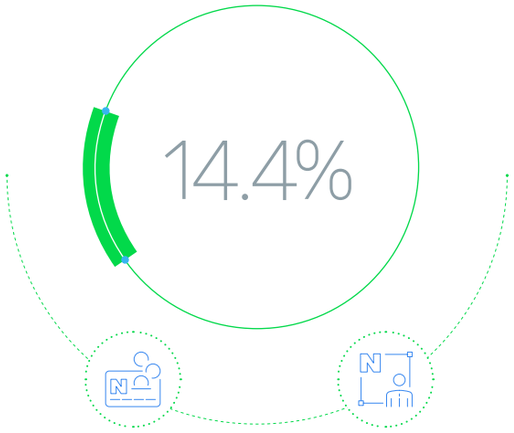


FINTECH

NAVER is evolving into a financial platform on the back of competitiveness and experiences which it has gained as a leader of simple payment service. In the fintech market, where significant innovation and new growth are expected more than any other fields, NAVER will open a new chapter in digital finance based on advanced technology, quality data and a win-win philosophy.

Major Achievements of Fintech in 2022

Revenue Portion



Payment Amount of NAVER Pay in 2022

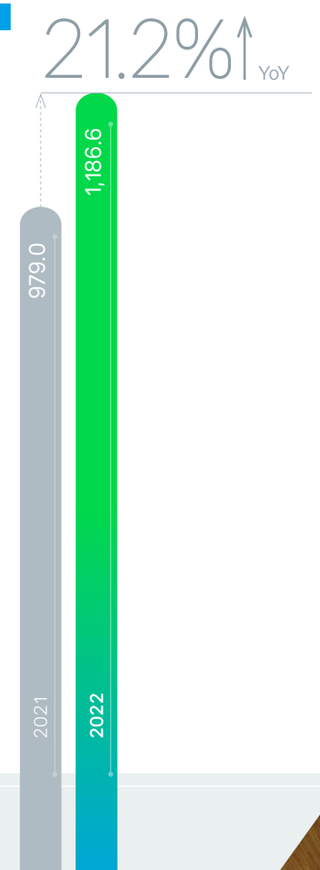
KRW 49 trillion

No. of NAVER Pay Members as of 2022

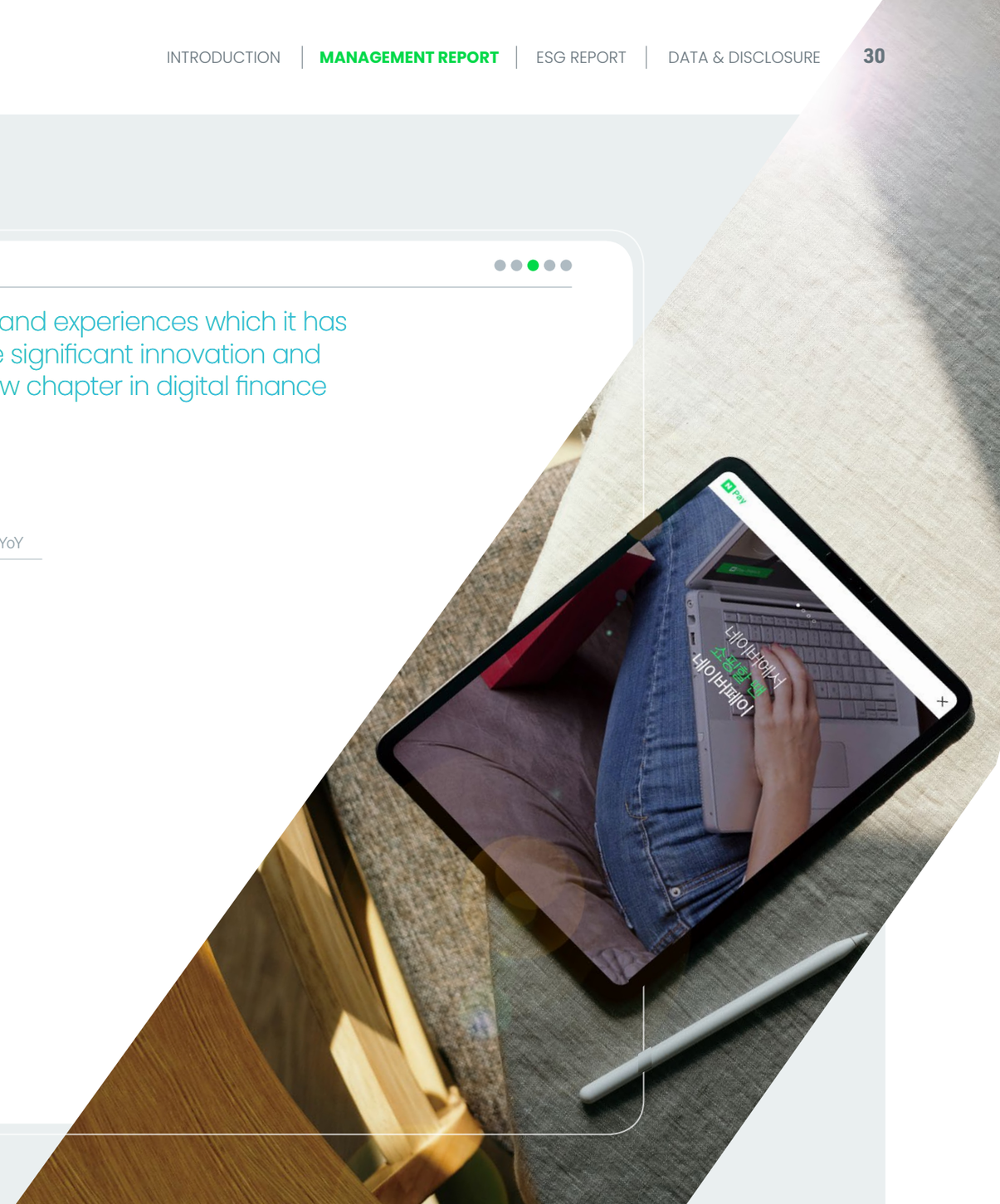
30 million+

Revenue & Year-on-year Growth of Fintech

(Unit: KRW billion)



* As of December, 2022



Fintech is composed of NAVER Pay and digital financial services, with the payment business growing rapidly in line with the expansion of internal commerce and external franchises. We are expanding user convenience online and offline based on on-site payment, reservation/order payment, and deferred payment services while starting to provide fintech for SMEs and users in earnest through the launch of the quick settlement service, Smart Store/Smart Place merchant loans, and loan comparison service. Going forward, we plan to continue to explore related opportunities by focusing on SMEs, thin filers, and financial services for users within the NAVER ecosystem by utilizing NAVER's technology and data.

In 2022, NAVER's fintech business recorded KRW 1,186.6 billion in revenue, up 21.2% from the previous year. NAVER Pay payment amount, which recorded KRW 38 trillion in 2021, increased by 28.2% over the year to KRW 49 trillion in 2022, as a result of continuous increase of online and offline franchises including large global franchises, as well as the tight connection of all payment channels of users.

The number of monthly users of NAVER Pay is approaching 17 million while the volume of payment by charging points has grown by about 1.5 times from the previous year, which shows that the number of loyal users is growing.

NAVER FINANCIAL

Financial platform that provides convenient payments, financial services, and a good business environment

NAVER has been continuously strengthening its role not only in the payment business, but also in helping platform sellers convert online and supporting thin filers. NAVER Smart Store sellers are receiving the fastest settlement service in the world, Smart Store Business Loan through tier-1 and tier-2 financial companies have reached nearly KRW 200 billion as of the first quarter of 2023 after the product was launched in 2021, serving as a great boost to small business owners. In June 2022, we launched Smart Place Business Loan to expand the scope of loan services to offline sellers. We launched loan-comparison services for businesses and individuals in October and November, respectively, to strengthen our lineup. In November, we launched the NAVER Pay Money Hana Bank Account to broaden the scope of our service so that users can not only store their Pay points more safely but also receive interest while securing more loyal users of NAVER Pay. Based on the Pay ecosystem built by NAVER, we plan to continue to introduce a variety of differentiated financial services that small business owners and users desperately need.

NAVER FINANCIAL has been concentrating on consolidating its position as the dominant No. 1 simple payment service provider by expanding its business area not only to shopping but also to online/offline, domestic and overseas daily payments while introducing differentiated products such as business loans and NAVER Bank Account in cooperation with a variety of financial partners. The main direction for the future is also a partnership-based asset-light model, which aims to expand the platform business by establishing a cooperation model with more financial companies. As part of this, NAVER's securities and real estate services were transferred to NAVER FINANCIAL in January 2023, which is expected to introduce more differentiated services by strengthening the link between finance and assets, such as My Asset service and economic service.

→ Key Milestones of NAVER FINANCIAL

QUARTERLY REVENUE

(Unit: KRW billion)

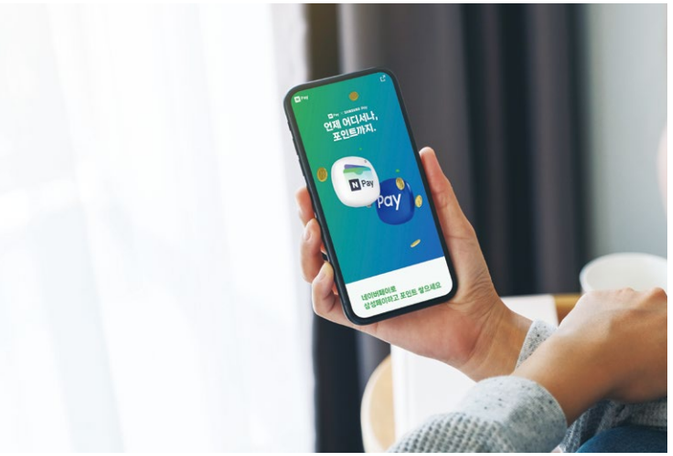
FINTECH

NAVER Pay Simple Payment

Simple payment service that provides a seamless flow from search to shopping and payment

In 2022, we launched NAVER Pay Watch App card payment, adding a feature that allows payment by credit card in addition to NAVER Pay points on a smart watch, the first case ever in Korea where a simple payment service can be used only with a smart watch without a smartphone.

In addition, we launched NAVER Pay Money Hana Bank Account in partnership with Hana Bank, a service selected as an innovative financial service by the Financial Services Commission. The service has been rapidly attracting users due to its benefits where users can enjoy interest income and point reward benefits for prepaid recharges at the same time.



NAVER PAY MY ASSET

Asset management service based on My Data

In 2021, NAVER FINANCIAL received approval from the financial authorities for its own credit information management business (My Data) to further expand and provide My Asset service enabling users to grasp the status of their assets in banks, securities, cards, and loans at a glance, and to easily manage credit and assets. We also introduced a mobile driver's license as a means of authenticating remittance services for the first time in the fintech industry in line with the mobile ID era. By opening the Smart Place financial support menu, we are creating and strengthening an environment where small business owners in the NAVER ecosystem can easily check the financial information they need for their business at once.

Financial Platform Services

Reliable financial product comparison service

NAVER FINANCIAL received registration approval from the Financial Supervisory Service as the first loan product sales agent and broker in accordance with the Financial Consumer Protection Act, based on which we introduced NAVER Pay credit loan comparison service and loan security care service. The loan comparison service, which was launched at the end of 2022, has showed excellent initial results even in the face of continued interest hikes that have limited users' ability to execute loans. In particular, the personal credit loan comparison service has showed high growth potential, ranking 4th in terms of transaction amount and number of views in just over a month since its launch. In addition, the service is receiving favorable reviews from users as well as affiliated financial companies by providing more accurate loan limit inquiry services based on accumulated data and providing differentiated services such as sincere repayment events and loan security care insurance. Going forward, we plan to further expand our network of financial company alliances and upgrade our services.

NO. OF MONTHLY USERS OF NAVER PAY

17 million

NO. OF MONTHLY PAYMENTS NAVER PAY

100 million

* As of December, 2022

SPECIAL FEATURE

Innovative Financial Services for SMEs and Thin Filers

NAVER provides a variety of financial services for businesses within NAVER ecosystem, including "the quick settlement service", the world's fastest in its kind. Launched in December 2020, the quick settlement service is a free pre-settlement service that pays 100% of the settlement amount the day after collection is completed, about three days after payment is made. From 2021 to 2022, small business owners saved KRW 90 billion in financial costs through the Smart Store quick settlement service. NAVER FINANCIAL has reduced the ordinary settlement period from 8 days to 3 days by utilizing its own fraud-detection system (FDS). Even without collateral, Smart Store operators who meet the usage requirements, such as 20 or more monthly orders for three consecutive months, can use this service. As a result, about 41% of the gross merchandise value (GMV) of Smart Store is being paid through the fast-track settlement. Among them, the proportion of payments to micro businesses and SMEs reached about 62%, rendering the quick settlement an essential service for Smart Store fund turnover.

Quick Settlement

A settlement service, free of charge, paying in full the day after delivery is complete. Over the last two years since its launch, KRW 17.4 trillion has been paid through the service, saving KRW 89.6 billion in interest cost for small businesses

Smart Store & Smart Place Business Loans

A credit loan service affiliated with tier-1 and tier-2 financial sectors using non-financial data to lower the loan threshold for small business owners lacking financial history and business experience

Deferred Payment

A service enabling thin filers, who have limited credit history, to purchase first and pay later

NAVER Business Financial Center

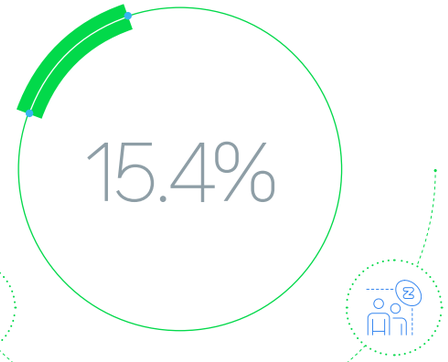
A service that gathers essential information for business, such as start-up, tax, and labor guides, in one place

CONTENTS

Contents refers to a business that provides an ecosystem wherein creators and users can freely create and consume. They are valuable assets of NAVER, where creators' innovations sprout based on NAVER's platform and technology. We will therefore expand our business so that content can flourish on the global stage.

Major Achievements of Contents in 2022

Revenue Portion



Monthly Active Users of NAVER Storytelling Platforms

170 million

Monthly Active Users of SNOW

200 million

Accumulated No. of Zepeto Subscribers

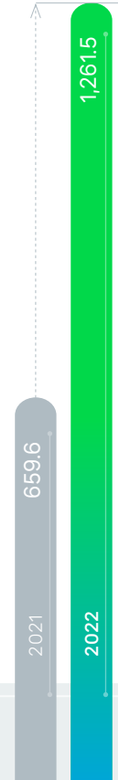
100 million +

* As of December, 2022

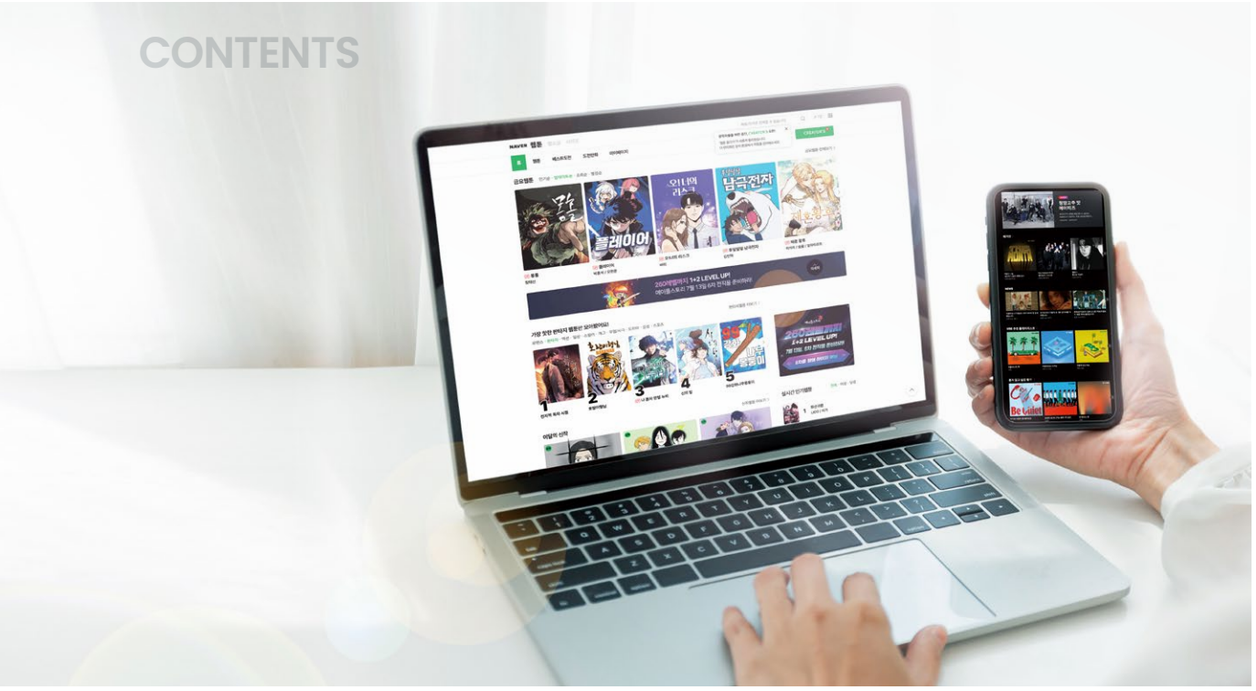
Revenue & Year-on-year Growth of Contents

(Unit: KRW billion)

91.3% ↑ YoY



CONTENTS



NAVER offers a variety of content services such as Webtoon, Web Novel, Music, SNOW, and ZEPETO. The number of global users of these services is increasing significantly every year based on their outstanding technology, and we are working hard on developing a variety of revenue models as well. In March 2022, LINE Digital Frontier, a Japanese subsidiary of NAVER Webtoon, acquired e-BOOK Initiative Japan to be provide our services through both application and web. It is focusing on strengthening its influence in the Japanese digital manga market. In addition, in July 2022, we launched an integrated fanship platform of V LIVE and Weverse in cooperation with Weverse Company, a subsidiary of HIVE, to make the leap to a global entertainment platform.

NAVER generated KRW 1,261.5 billion revenues in contents business, an increase of 91.3% compared to the previous year. NAVER's Webtoon business, which is leading the way in strengthening the global portfolio of content business, acquired the domestic web novel platform Munpia in 2021, and completed the acquisition of eBOOK Japan, Japan's largest e-book operator, in 2022, further solidifying its position as the No. 1 global storytelling platform.

NAVER is focused on creating synergy between NAVER Webtoon and Wattpad by upgrading the platform and business model of Wattpad, the world's largest web novel platform acquired in 2021. As the first attempt, in last October we launched "Yonder", a premium paid content platform that provides carefully selected content through advanced screening work in the North American market. Through Wattpad, we provide an ecosystem where anyone can contribute their own stories and comic books, to support the growth of amateur creators whereas through Yonder, we provide high-quality works by way of the curation of premium webtoon and web novel content.

We anticipate that Wattpad users will flow into Yonder and global webtoon, ultimately locking-in as loyal users as a result of a consistent flow. In the process, we intend to strengthen our ability to secure original content and diversify our intellectual property (IP) business by distributing the works of domestic web novel writers abroad through Wattpad, producing web novels verified on Wattpad as webtoons, and filming web novels and webtoons that have been verified for box-office success.

NAVER Webtoon is taking a step closer to becoming a world-class entertainment company by successfully establishing a content value chain that leads to securing creators, content distribution, and IP commercialization in domestic and overseas markets. In Japan, synergy between LINE Manga, which has competitiveness in apps, and eBOOK Japan, which is competitive on the web, is expected to achieve greater results in the distribution of global IPs secured by NAVER Webtoon in Japan and in discovering local creators in Japan.

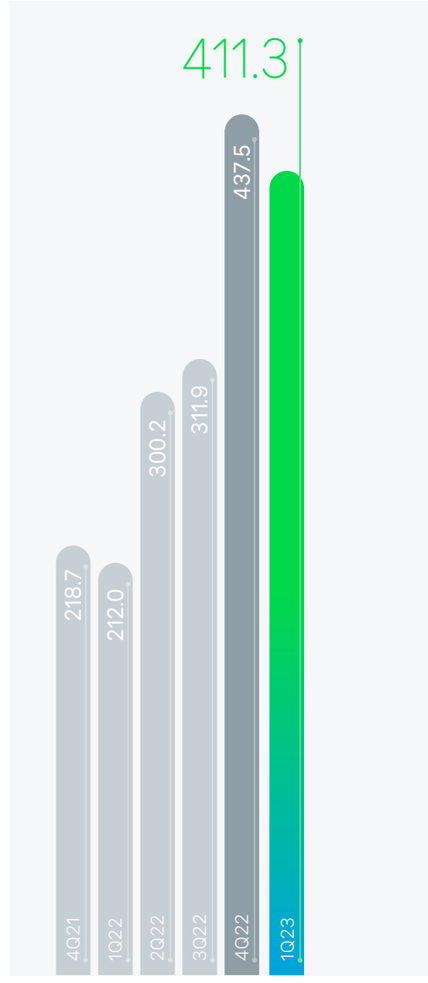
NAVER Webtoon

Global No. 1 storytech platform that grows with creators and communicates with users around the world

Based on its unrivaled position in Korea, NAVER Webtoon is strengthening its leadership as the world's No. 1 storytech platform. It operates Korea's first webtoon creator platform "Challenge Comics" and global amateur creator platform "CANVAS" and seek to discover and nurture domestic and foreign amateur creators while actively supporting their growth as professional creators through the platforms. Through NAVER's storytelling platforms including NAVER Webtoon and Wattpad, six million creators around the world present more than one billion creations each year. Notably, creations from CANVAS such as "Lore Olympus", "Unordinary" and "Let's Play" serve as role models for creators because not only do they maintain the top spot in US webtoon sales and generate huge profits, but they are also being serviced all over the world through NAVER Webtoon's global platform.

QUARTERLY REVENUE

(Unit: KRW billion)



CONTENTS

ANNUAL GLOBAL TRANSACTION

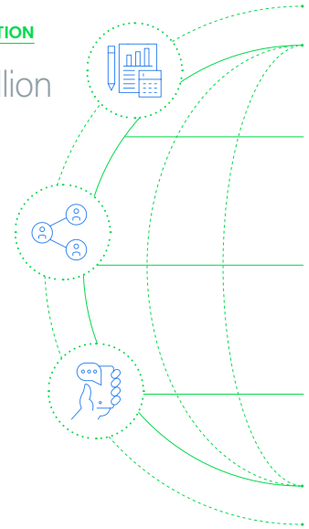
KRW 1,588.5 billion

NUMBER OF GLOBAL CREATORS[1)]

6 million

GLOBAL WEBTOONS AND WEB NOVELS[1)]

1 billion



* As of December 2022
1) Including Wattpad

As such, CANVAS is positioning itself as a platform where creators want to present their works the most, which is a special strength unique to NAVER Webtoon, given the nature of the industry where it is essential to discover and secure high-quality content and competent creators.

In addition, NAVER and NAVER Webtoon are strengthening their competitiveness in the content value chain by acquiring global IP platform companies and launching new services. After acquiring Wattpad in May 2021, NAVER launched the Wattpad Webtoon Studios by integrating the existing Webtoon Studio and Wattpad Studio in June. Wattpad Webtoon Studios is actively promoting the visualization and commercialization of IP owned by NAVER Webtoon and Wattpad while working on more than 120 projects in some 10 countries.

SNOW

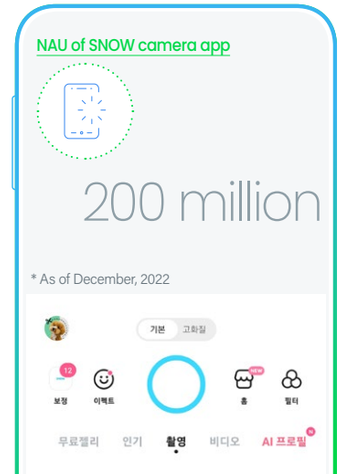
Camera-based AR platform leading the global visual communication trends

SNOW has been serving a role of a "company builder" since 2016, introducing a variety of mobile services and promoting content and commerce businesses. Currently, SNOW's main business portfolio includes SNOW (camera-based AR platform), Zepeto (global metaverse platform), CAKE (global language education platform), Playlist (K-Drama platform), Semicolon Studio (K-Movie platform), Super Labs (digital human creation platform) and SpringCamp (initial startup investment). Among them, SNOW's camera service is a global platform with 200 million users, with its most well-known applications including SNOW, B612, and Foodie. SNOW is generating revenue by meeting users around the world based on its camera app and providing a variety of types of advertising services, such as sponsor stickers, splash ads, and AI avatars, as well as subscription and paid services.

NAU of SNOW camera app

200 million

* As of December, 2022



Zepeto

Global AR avatar service that creates your own new world

Zepeto is a metaverse service launched by SNOW in September 2018. Targeting Gen Z as its main user base, it aims to become a platform where users can create anything they imagine anytime, anywhere in a variety of worlds embodied in the virtual world of ZEPETO with their own avatars. It is in servicing more than 100 million users around the world while generating revenue through coins which users purchase in order to make in-app purchase of more than 9 million a variety of virtual items (clothing, gestures, etc.) through in-app purchases within Zepeto.

PERCENTAGE OF OVERSEAS ZEPETO USERS

95%

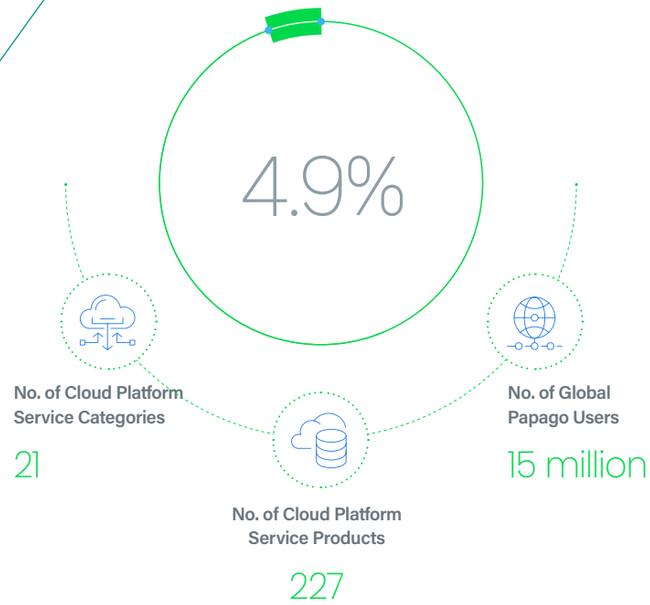
* As of December, 2022

CLOUD

In the era of Industry 4.0, digital transformation through the cloud serves as the basis for business success. NAVER will open a new chapter of innovative B2B services based on our advanced technology, vast amount of data and abundant traffic handling experiences.

Major Achievements of Cloud in 2022

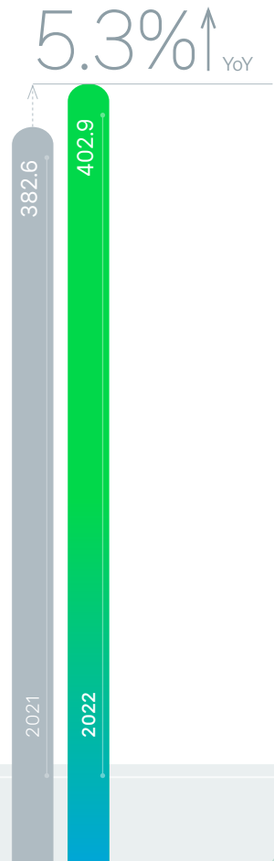
Revenue Portion

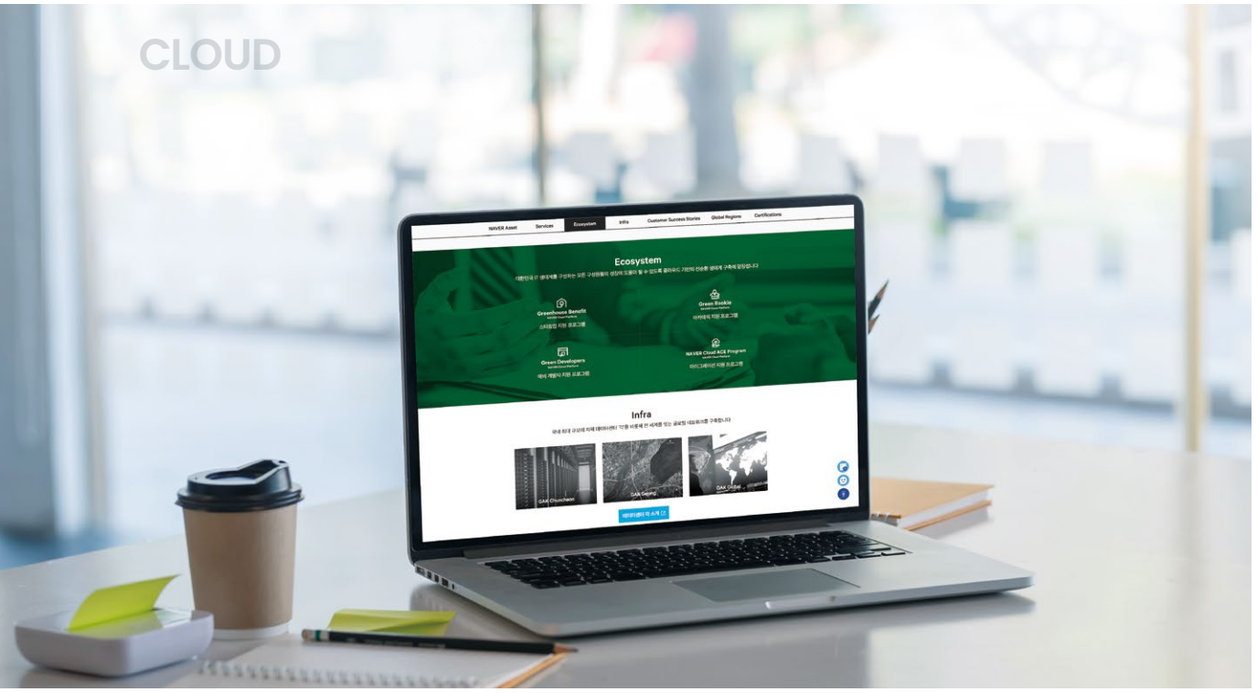


* As of December, 2022

Revenue & Year-on-year Growth of Cloud

(Unit: KRW billion)





Main businesses of NAVER Cloud include sales of various software and hardware of NAVER Cloud Platform, WORKS Mobile, and CLOVA. In 2023, we plan to integrate AI technology and B2B business organizations into NAVER Cloud. We are focused on mutual business cooperation and synergy creation so that NAVER Cloud Corporation, a B2B service convergence driving force, can provide not only existing corporate services such as WORKS and CLOVA, but also other various services of NAVER such as NAVER LABS, NAVER Shopping, and Whale through B2B.

NAVER Cloud

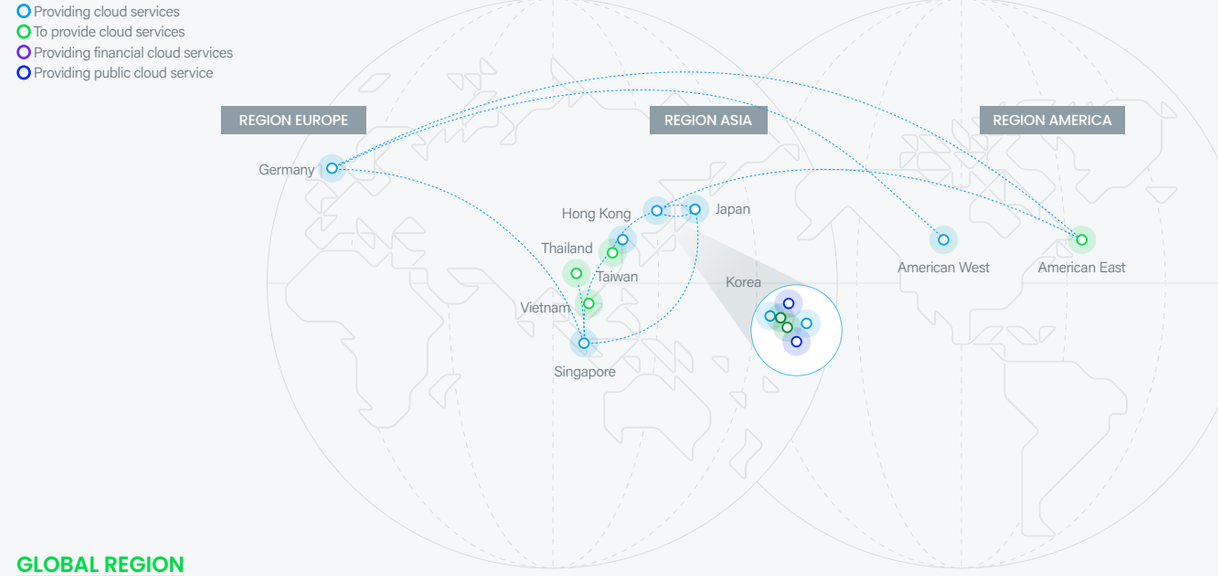
Public cloud services based on proven competencies and technologies

NAVER Cloud Corporation is Korea's leading cloud and IT service provider. As a public cloud that covers all areas of IaaS, PaaS, and SaaS, NAVER Cloud Platform as of December 2022 provides 227 cloud services in 21 product categories. In addition, as a global cloud and infrastructure builder, it is strengthening its data platform lineup, such as expanding cloud AI technology commercialization references, even providing services for hybrid cloud configurations such as Neurocloud.

We focused on market expansion in 2022, starting with "Vertical Service", a customized cloud service package optimized for each industry and application type. As part of our market expansion strategy, we are currently looking to increase synergy by strengthening cooperation with domestic and foreign competitive solution partners. NAVER Cloud is strategically poised to make significant strides in the global market, with a strong focus on entering the Southeast Asian market, while also focusing on increasing the market presence of NAVER WORKS, a Korean version of LINE WORKS which is the leading collaboration tool market in Japan.

NAVER Cloud has been flexibly managing large-scale computing resources to stably operate hundreds of NAVER's various services. It has developed the ability to externally provide cloud services while internally building and using the service platform or technology. Leveraging its extensive experience in the online business landscape and advanced IT technology, NAVER Cloud is dedicated to offering tailored cloud services that cater to the diverse needs of businesses. Our goal is to facilitate the seamless adoption of cloud solutions across various industries, including those that handle sensitive data such as public, finance, medical, and education, while helping our clients increase visibility of their service operations. NAVER Cloud, which has deployed the most cloud products among domestic cloud operators, has world-class security technology as proven by acquiring the CSA STAR (Security Trust Assurance and Risk) Gold rating through large-scale investments in the security sector.

Starting in 2023, we will not only strengthen the competitiveness of our cloud services by combining NAVER's AI technology and technology platform capabilities that we have accumulated thus far, but also aim to become a global technology platform based on the synergy combined with the world's best AI technological capabilities.



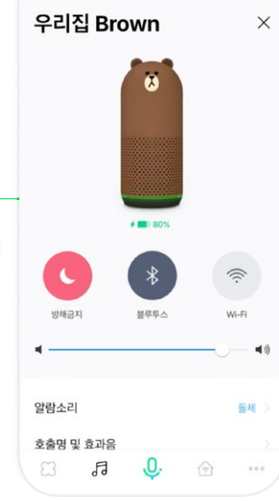
GLOBAL REGION

NAVER Cloud has established and is operating global regions in key overseas locations, while continuously expanding our customer service capabilities so that it can quickly reach anywhere worldwide.

CLOUD

No. of CLOVA Note downloads

3.2 million



CLOVA

AI aggregate that supports companies' AI transformation to create new value

NAVER CLOVA is an integrated AI platform that combines cutting-edge technologies such as voice/image recognition, artificial neural network translation and conversational engine. The platform is continuously upgrading dubbing products, AI call solutions, document appraisal and summary, OCR capable of digital conversion, and chatbot products. It has developed cloud products such as Face Sign, which helps online and offline identity recognition with face recognition, and AiTEMs, a personalized shopping recommendation service. It also provides CLOVA CareCall, Korea's first hyperscale AI technology-applied phone care service, as well as CLOVA HappyCall, which can conduct customer satisfaction surveys and incomplete sales monitoring over the phone.

HyperCLOVA[1], a hyperscale AI developed by NAVER for the first time in Korea, has been introduced in search services in earnest and is expanding into AI products targeting companies. CLOVA Note, a HyperCLOVA-based speech-to-text (STT) conversion service, has been highly acclaimed with 3.2 million downloads as of the end of 2022. CLOVA Studio, a no-code platform that allows you to explore and apply the applicability of AI to real services without development expertise, is creating new value in various internal and external NAVER services while also leading AI transformation.

Furthermore, in the summer of 2023, HyperCLOVA will be upgraded to HyperCLOVA X, a hyperscale AI that combines customer data with HyperCLOVA to better understand user areas of expertise and immediately provide specialized responses. Along with the release of HyperCLOVA X, we will also introduce CLOVA Studio equipped with a more powerful version of backbone and AI development tools, through which we will strengthen the quality and portfolio of our cloud services including custom B2B products. With our combination of top-level researchers and the largest cloud business unit in Korea, we at NAVER have achieved significant recognition in the field of mega AI research. Our research outcomes have been acknowledged not only by academic conferences but also by being selected as "Best Paper" and "Notable Top 25%" research. In January 2022, at the prestigious machine learning conference The International Conference on Learning Representations (ICLR), NAVER CLOVA had 12 papers accepted, and a total of 17 papers, including NAVER Labs Europe and LINE, were presented. This marked the first time that a Korean company presented double-digit numbers of papers. We at NAVER continue to demonstrate our ability to standardize our technology into commercial products, attracting corporate clients and proving that AI can be a viable business and create value in itself.

Listen to your notes with your eyes using CLOVA Note

[1] The higher the number of parameters representing the size of an AI model, the more problems the AI can solve. Typically, a model with 10 to 100B (10 billion to 100 billion) parameters is referred to as super-giant or hyperscale. NAVER HyperCLOVA was developed on a scale of 204B (204 billion) parameters.

WORKS MOBILE

Collaboration platform for global leading companies that transform the way we work

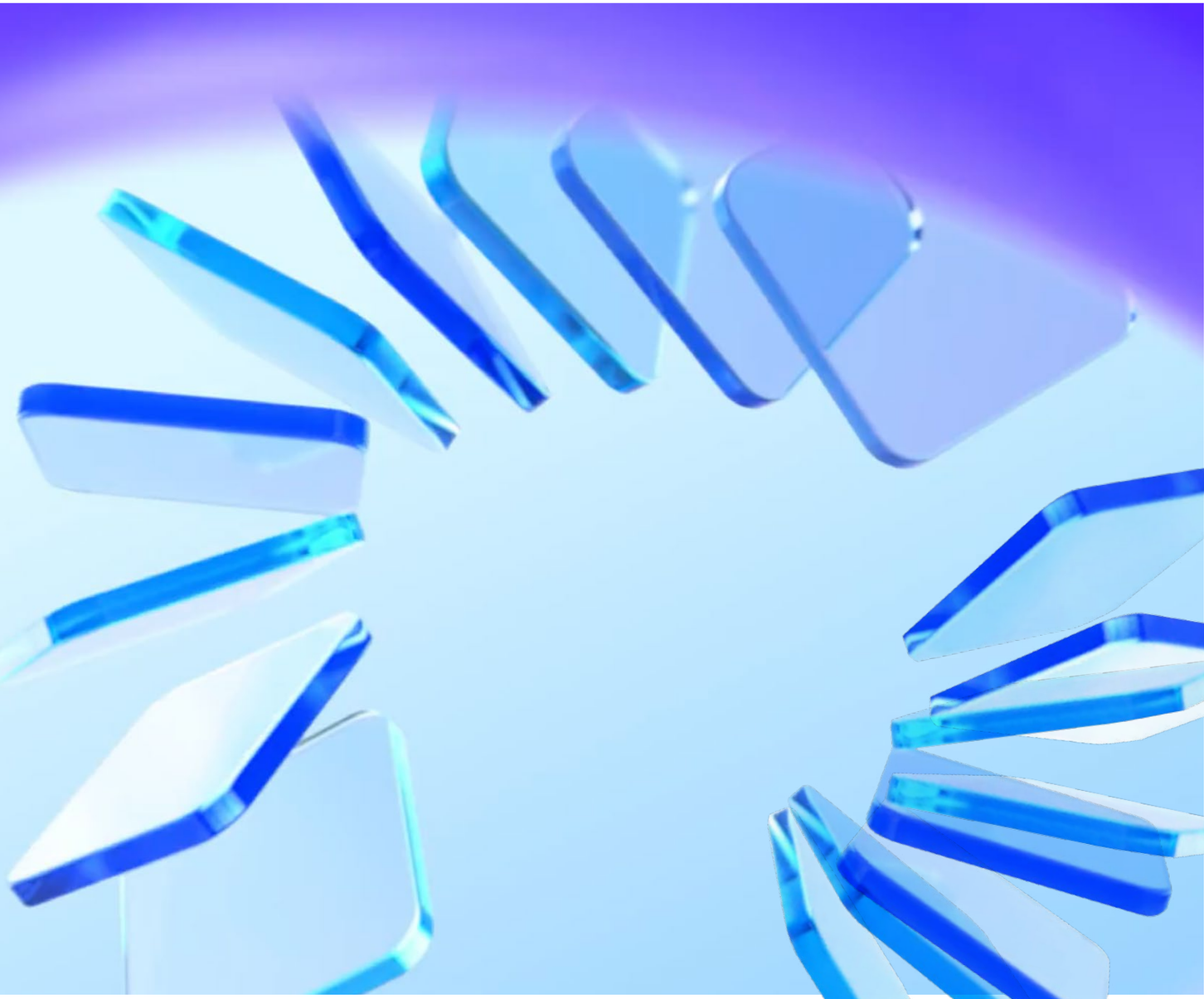
Works Mobile is a global service provider of LINE WORKS (NAVER Works in Korea), a collaboration solution for B2B businesses. It is a collaboration platform service company that integrates and provides various functions such as mail, calendar, drive, address book, file sharing, voice call, and video conference centered on Messenger in a mobile environment. LINE WORKS adds work convenience by providing interlinking services that can be used according to the business type and needs of each company. Thanks to these differentiated functions and conveniences, as of December 2022, there are 470,000 companies that have introduced Global LINE WORKS and more than 4.8 million users. Most notably, in Japan, it is expanding its scope to industries such as construction, nursing, education, and manufacturing based on its overwhelming share in the finance, securities, and insurance sectors while expanding its services throughout Japan through collaboration with major regional partners. As a result, Works Mobile recorded its first annual break-even point in the overseas market in 2022, paving its way towards making profit.

Since LINE WORKS is a B2B enterprise solution, it complies with international standards as well as Japanese laws. Through our Privacy Center, we committed to transparently disclosing the various security measures we have implemented so that it is easily accessible to partners and customers. In Korea, we obtained certification for Cloud Security Certification Program (CSAP) in the SaaS sector for NAVER Works products designed for public institutions together with NAVER Cloud in the fourth quarter of 2022, enabling public institutions and private companies to use safer and simpler NAVER Works products.

NAVER Whale

Easy-to-use browser that offers a whole new experience

NAVER Whale is a browser-based web service integration platform. It creates a new experience by providing additional features such as easy and fast navigation, synchronization to connect all devices, and blocking of fraudulent sites. Whale Space is an open platform that connects education services and collects learning data with an integrated account. Administrators can easily and conveniently manage their accounts, as well as apply the installation of learning tools and block unnecessary applications in batches to student learning environments, leading to efficient course progression. Whale Space is used by 17 Offices of Education across the country. Whale Book is a futuristic education platform device optimized for blended learning which combines face-to-face and online classes. Based on the fast and secure Whale OS, it provides various class tools and services essentials. "Whale ON" is an unlimited online video conferencing service that can be used directly from the browser without installing a separate application. Thanks to this differentiated competitiveness, Whale ON has 1.2 million monthly users.



TEAM NAVER – TOMORROW

NAVER pursues change and innovation through continuous R&D and investment in future technologies such as AI, robotics, and mobility. NAVER creates new opportunities and possibilities through experiments, challenges, and convergence with its diverse technologies. We are building new milestones for future capabilities and becoming a leader in creating an innovative future technology ecosystem so that future technologies that have confirmed their potential in NAVER's laboratories can be part of users globally.

In 2022, our long-term roadmap and investments for the future have materialized into 1784, the world's first robot-friendly building as well as ALIKE, the world's most advanced digital twin solution. Additionally, NAVER is preparing for future shared technology through expanded cooperation with technology startups, academia, and developers from various IT companies.

CAPABILITY DEVELOPMENT
AND TECHNOLOGICAL INNOVATION

LEADING THE FUTURE OF TECHNOLOGY

NAVER prepares for the future with technology as its driving force. We are researching AI, robotics, autonomous driving, digital twin, AR, among others so that various services originating from PC and mobile can be connected to the physical world without boundaries. We are creating the future of a platform that connects people, machines, space, and information with the most original and advanced technology.

NAVER Lab's Digital Twin

ALIKE-3D
Create 3D models of an entire city with aerial photography and AI technology. This 3D model can be used as a simulator to solve various urban problems as it presents core data for building a smart city.

ALIKE-RD
Generate city-wide road information with precision. Can automatically extract road signs and even lane information with AI technologies such as deep learning and computer vision. The completed road layout data is used for various mobility services and for research on the transportation system throughout the city.

ALIKE-HD
Create HD maps for self-driving cars. The combination of True Ortho extracted from ALIKE-3D and data acquired through MMS (Mobile Mapping System) greatly shortens the data post-processing process.

ALIKE-M
Create digital twins of large indoor and outdoor spaces. It utilizes self-made mapping robots and wearable mapping devices to effortlessly connect complex environments such as indoors/outdoors, vertical/horizontal, flat ground, and stairs.

Application of Spatial Digital Twin

AR | Robot | Autonomous driving | Smart building | Smart city

Open Dataset

Universities | Research institutes | Startups

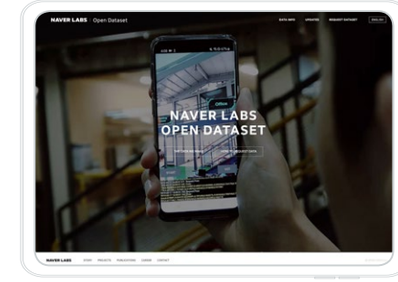
ALIKE – MEGACITY-SCALE DIGITAL Twin Solution

NAVER LABS, a research and development subsidiary responsible for NAVER's future technologies, possesses a world-class spatial digital twin solution. A digital twin is a technology that replicates the real world in the digital realm. NAVER LABS has developed its own digital twin solution called "ALIKE," which combines AI, robotics, cloud technologies, and more to create a solution that can faithfully recreate vast 3D spaces at a megacity scale on computers.

In 2022, NAVER made a significant entry into the digital twin technology market by launching "Arc Eye," a fully managed digital twin service called, through NAVER Cloud. Arc Eye integrates core technologies, mapping devices, and cloud infrastructure to enable high-precision mapping of large-scale spaces and provide positioning capabilities required for various spatial data-based services. It is suitable for constructing digital twins of large-scale indoor and outdoor complex spaces such as large shopping malls, buildings, and airports. Even at NAVER's second headquarters, "1784," which serves as a testbed for robot-friendly buildings, approximately 100 robots utilize digital twin data through Arc Eye. Digital twin technology enables planning, monitoring, and optimizing the paths and services of robots. In addition, various digital twin experiments, including AR, 3D vision, autonomous driving, and simulations, are continuously being conducted in different areas of 1784.

Furthermore, since May 2021, NAVER has been actively promoting collaborative technological growth by publicly releasing "NAVER LABS Open Dataset" to provide diverse digital twin data free of charge to universities and research institutes.

NAVER LABS' digital twin technology is garnering attention from numerous partners both domestically and internationally for its uniqueness, megacity scale, high data accuracy, and scalability. The city digital twin data, in particular, serves as a vital technology for NAVER's vision of future cities, enabling the resolution of various urban issues and innovative mobility services that connect different parts of the city as part of a smart city infrastructure.



NAVER LABS Open Dataset

1784 – Tech Convergence Building

In NAVER's new office building "1784", approximately 100 robots move across all floors of the building to provide various services. It is rare to find a place in the world where numerous service robots are deployed to provide multiple services continuously in a daily space outside of a factory setting. We have eliminated steps in all the spaces of the building so that robots can move safely and quickly while developing "Roboport", an elevator exclusively for robots, to address the problem of their vertical movement in a high-rise building. Since the robots are all connected to the spatial infrastructure, they can freely enter and exit all entrances, including conference room doors. People can easily access various robot services with one app. In addition to robot technology, this building has incorporated all of NAVER's accumulated platform engineering technology, AI technology, and know-how in service development and operation. The core of NAVER robot technology is cloud robotics, and "ARC" is the system that has commercialized this technology through NAVER Cloud Platform. The ARC system consists of "ARC brain" serving as the robot brain and "ARC eye" functioning as the eye of robots using digital twin data and positioning AI technology. Currently, all the robots in 1784 are connected to the Arc system to provide services.

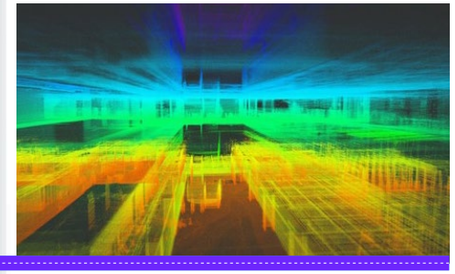
1784 attracts influential business and government figures from around the world. This is due the tech convergence building where you can see robot systems, infrastructure, and services on a scale that cannot be seen anywhere else. In line with this, NAVER is accelerating global business cooperation on smart building solutions including robots and digital twin technologies. Following 1784, the hyperscale data center "GAK Sejong" under construction by NAVER is also expected to serve as a testbed for next-generation technologies. New experiments such as robots to help server administrators and self-driving shuttle buses are underway.

Multi-Robot Intelligence System, ARC

Service

Digital Twin

Data



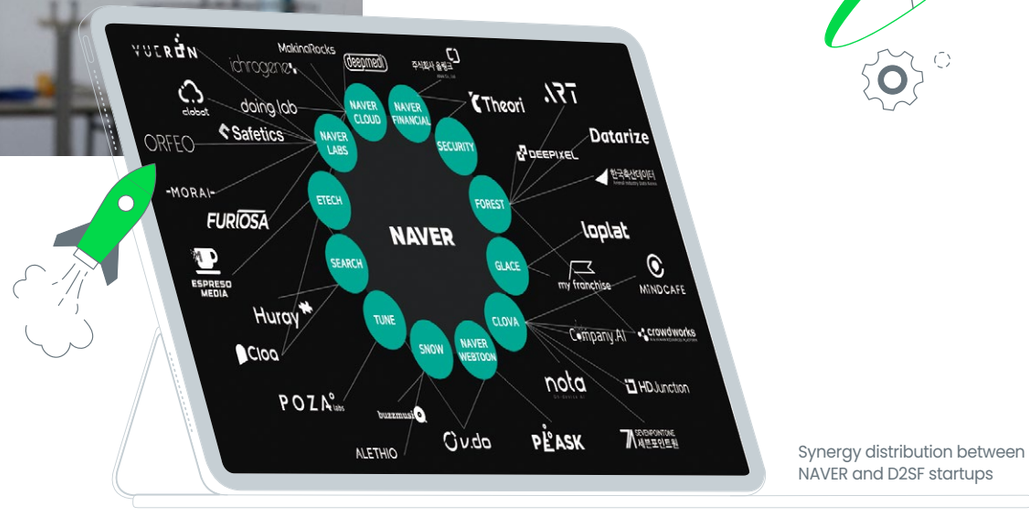
Robot, AR, etc.

Left: UAE Sharjah Crown Prince Explores Tech Convergence at NAVER 1784
Right: Officials from Five Pacific Islands Visit World's First Robot-Friendly Building, NAVER 1784

FUTURE TECHNOLOGY INVESTMENT AND COOPERATION ECOSYSTEM

INVESTING IN THE FUTURE TECHNOLOGY

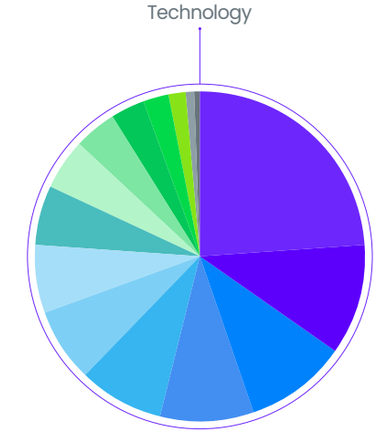
NAVER invests in technology for a better future. We support the potential of technology startups to lead to innovation, and we cooperate with the academic community to open a new chapter in future technologies. Moreover, we continue to grow together with our stakeholders by creating a venue to share the best technologies, experiences, and know-how in the cooperative ecosystem led by NAVER.



Synergy distribution between NAVER and D2SF startups

D2SF –Strategic Synergy Creation through Startup Investment

"NAVER D2 Startup Factory (D2SF)" is a Corporate Venture Capital (CVS) launched by NAVER in May 2015 aimed at strategic startup investment. It invests in early-stage startups with potential to expand the base of the tech startup ecosystem, helps them grow, and seeks strategic synergies with NAVER. As of the end of 2022, NAVER D2SF invested in 102 technology startup teams while connecting NAVER's various technology/business organizations and 1,415 startup teams to find points of contact for collaboration. In the process, it discovered 154 collaboration agendas. Collaboration types can be divided into new business discovery, technology/service advancement, partnership expansion, and market sensing. Three teams have been acquired by NAVER and its affiliates thus far. For the growth of startups, in addition to investment funds, we support them in terms of dedicated work space, cloud infrastructure, public relations and marketing, follow-up investment attraction, and Office Hours while offering them various opportunities for collaboration with NAVER's technology and business organizations. We have prepared spaces dedicated to startups in the vicinity of Gangnam Station in Seoul and in the second NAVER office building. The space within the second NAVER office building is being operated as a space where NAVER and startups can experiment, collaborate and grow together. Since 2016, we have held a campus technology startup contest every semester to discover and invest in potential student startup teams.



Breakdown of synergy creation between NAVER and D2SF startups by Technology

CASE STORY

MORAI – Welcome Onboard Team NAVER

MORAI – Synergy creation between NAVER and technology startups through D2SF The differentiator of NAVER D2SF is that it provides collaboration opportunities through which early-stage startups can generate strategic synergy with NAVER. In particular, D2SF serves as a link between Team NAVER's technology organization and startups, opening a new future through technology. "MORAI" is an autonomous driving simulation technology startup. NAVER D2SF carried out seed investment as the first institutional investor of MORAI in 2018. Following the series A investment in 2020, it carried out a follow-up investment of KRW 25 billion in 2022. It has invested in MORAI's potential. Meanwhile, it has created synergy by testing and upgrading NAVER LABS' self-built high-precision maps and self-driving technologies in MORAI's simulators. Additionally, in June of 2022, NAVER LABS and NAVER Cloud signed an MOU with MORAI for strategic collaboration in the fields of smart mobility autonomous driving and digital twin services as part of a strategy to maximize collaboration synergies by successfully integrating Team NAVER's technological prowess in various fields. They have been concentrating their efforts on targeting the self-driving simulation business in the public sector. Based on this kind of support and cooperation, MORAI has been able to successfully settle down in the market while pursuing new growth with Team NAVER.

Nuvi Lab – Going Global with Team NAVER

Nuvi Lab – Spreading ESG Values through D2SF and Advancing into Global Market In January 2023, 18 startups invested by NAVER D2SF participated in CES 2023, the world's largest consumer electronics and IT exhibition held in Las Vegas, USA. Among them, eight companies, including Nuvi Lab, a food data analysis ESG startup, drew global attention by winning the Innovation Awards at CES 2023. In 2021, NAVER D2SF paid special attention to the ESG value created by Nuvi Lab and made a preliminary investment. In 2023, it supported Nuvi Lab's participation in CES as part of its ongoing efforts to promote sustainable growth. Nuvi Lab presents ways to practice ESG in the food consumed daily through AI food scanning technology. The technology scans food plates through camera before and after consumption, then the AI identifies and quantifies the food quantity consumed and left over, and converts them into a carbon reduction, encouraging the users to practice ESG daily. The solution has been applied to 22 soup kitchens nationwide to reduce the cost of food materials and garbage disposal while improving the quality of meals through menu preference analysis. The value of Nuvi Lab's solution was promoted to the global market at CES 2023 as part of company's efforts for sustainable growth with Team NAVER.

Industry-Academia AI Partnership – Partnership for Creation, Sharing and Diffusion of Future Technologies

Following the establishment of a hyperscale AI research center with Seoul National University (SNU) in June 2021, NAVER set up a dedicated space for a hyper-creative AI research center with KAIST in July to work closely with KAIST to research and develop hyperscale AI source technology. Through collaboration with SNU, we strengthened the reliability of HyperCLOVA, NAVER's super-giant AI, and applied it to our services and created meaningful research results in the field of multimodal AI that comprehensively handles text, images, and voice. We have published more than 10 papers at the world's most prestigious AI societies such as NeurIPS, ICLR, CVPR, and EMNLP.

At the KAIST-NAVER Hyper-Creative AI Research Center, which was established in 2022 in the second NAVER office building "1784" showcasing NAVER's concentration on new technologies, more than 10 KAIST faculty members and over 100 AI researchers from NAVER and KAIST conduct joint research related to ultra-creative AI, a new and challenging field. NAVER researchers are working closely with KAIST faculty and students to evaluate the quality of content created by generative AI and conducts research to help users use it easily and effectively, as well as research to understand multimodal data content. They have published more than 10 papers at world-renowned conferences such as ICML, ECCV, NeurIPS, and CHI.

In addition, NAVER has proposed a technique for effectively pre-training data in a super-large language AI through collaboration with NYU Professor Cho Kyunghyun, a world-renowned scholar in the field of AI while researching techniques to create safer AI in association with Professor Choi Yejin of the University of Washington. Furthermore, we have formed our own AI Ethics Forum with SAPI (Seoul National University AI Policy Initiative) and KAIST Professors Alice Oh and Professor Cha Meeyoung and built a dataset to create a super-large AI that solves the bias issues pointed out as socially sensitive issues and limitations of super-large AI and we plan to release it soon.

In October, we signed an MOU with the University of Toronto in Canada, for joint R&D of user-participatory content platform technology based on super-giant AI and established a research center. Over the next five years, we will invest KRW 5 billion to secure global super-giant AI competitiveness in the ChatGPT era. In addition, NAVER is conducting more than 55 industry-academia cooperations as of 2022 with various domestic and foreign universities to apply AI technology to its services. We are actively promoting AI R&D cooperation covering Asia, Europe, and North America by entering into industry-academia cooperation partnerships with Posts and Telecommunications Institute of Technology (PTIT) in Vietnam, Hanoi University of Science and Technology (HUST) in Vietnam, and the University of Tübingen in Germany.

KAIST-NAVER Hypercreative AI Center

DEVIEW – Developer Conference with Developers' Perspectives on Tomorrow

DEVIEW, NAVER's representative developer conference, started out as our in-house technology event in 2008, and has since grown into the largest event for developers in Korea. The conference was held online in 2020 and 2021 to prevent the spread of COVID-19. In February 2023, however, it was held offline for the first time in four years befitting the theme of "technological growth through communication and sharing", and 3,845 people, the largest number ever, attended the conference. At DEVIEW 2023, a total of 42 technical presentations were given, and various IT companies, including NAVER, shared their in-depth experiences with developers. Expanded technical exchanges were possible through eight workshops where speakers and participants could discuss together in each technology field. In particular, the DEVIEW CAMPUS in which 115 college students participated was introduced for the first time as a venue to share their experiences to their standards and opinions. The main topics addressed in the keynote speech included HyperCLOVA X, which will open a world where anyone can take advantage of super-large-scale AI, and NAVE's next-generation search technology project – SearchGPT.

ESG REPORT

3.1 ESG FRAMEWORK

3.2 STAKEHOLDER ENGAGEMENT AND COMMUNICATION

3.3 2022 MATERIAL TOPICS OF NAVER

3.4 ESG COMMITMENT

ESG FRAMEWORK

ESG Implementation Strategy

NAVER's 7 ESG Management Strategies In 2022, NAVER elevated its ESG strategy, previously established in 2020, to better address and cope with the rapidly changing trends in global business environment and regulations surrounding corporate sustainability. NAVER first identified opportunities and risks associated with sustainability in order to elevate its ESG strategy. Based on the risk-opportunity analysis, the company reorganized and upgraded its ESG implementation strategy to include more in-depth and detailed mid- to long-term goals and action plans that could contribute to the company's sustainable growth. Going forward, NAVER will continue to monitor and communicate its progress and development in achieving the goals laid out in all 7 strategies.

MAXIMIZING BUSINESS VALUE

Strategy	Risks & Opportunities	Strategic Direction	Achievements in 2022	Short, Medium and Long-Term Goals	Action Plan	Pages in This Report
Establishing a platform for ESG value creation	• **Risks** Growing demands and regulations for environmental management and e-commerce industry • **Opportunities** Increasing marketability of eco-friendly e-commerce owing to consumers' growing preference for eco-friendly products/services	• Seeking ESG service and business opportunities • Expanding eco-friendly e-commerce ecosystem	• Published the 2022 Green Commerce Report containing the results of NAVER Shopping's eco-friendly activities (June 2023) • Launched "Guaranteed Arrival" service based on eco-friendly fulfillment service • Released 7 special logos for the NAVER's search engine on environmentally significant anniversaries to raise public awareness • Replaced about 710 million paper documents (cumulative) through the NAVER e-document service • Improved NAVER Map's EV charging station information to cater to the needs of the growing population of EV users	• **Short-term goals (-2023)** - Providing eco-friendly certification information for products and packaging to enhance consumer accessibility to eco-friendly products - Strengthening SME green sellers' capabilities within NAVER commerce platform • **Mid- to long-term goals (-2026)** - Establishing a virtuous cycle in the NAVER's e-commerce ESG ecosystem	• **Increasing accessibility to eco-friendly products** - In addition to providing information on domestic certifications, providing 10 additional eco-friendly and/or ESG-related certifications for the products and packages in NAVER's commerce platform • **Helping SME Green Sellers strengthen their capacity** - Supporting education and providing eco-friendly packages for SMEs	P.57
Ensuring employee growth and satisfaction	• **Risks** Fierce competition to retain top-tier talents in the IT industry • **Opportunities** Needs for continuous talent development due to the rapid technological innovations in the industry	• Attracting and nurturing talents • Respecting human-rights • Improving employee satisfaction • Fostering diversity in the workplace	• Received positive responses from the employee engagement survey on the topics of organizational culture and general satisfaction (increased by 10%p on average compared to 2021) • Fully addressed (100%) all reports received through NAVER's human rights and grievance-handling channel • Contributed to increasing work productivity through the new work system "Connected Work" adopted in mid-2022 (45% responded to have "increased personal work productivity" in the effectiveness survey on the work system) • Operated more than 180 social communities called "Club Greeny" within the company • Established new leadership programs and held four leadership development events in the year • Provided a growth roadmap for the company's employees in the technology sector (more than 90% of entry-level employees participated and benefited from the program)	• **Short-term goals (-2023)** - Achieving 100% participation rate in the review process • **Mid- to long-term goals (-2025)** - Exceeding the national average of females in leadership positions in the IT sector by at least 10% - Maintaining 100% return rate after maternity/paternity leave - Having Zero (0%) serious accident rate at workplace - Continuing to fully addressing (100%) all reports received at the NAVER Human Rights and Grievance-handling Channel	• **Reinforcing employee competency development** - Implementing growth roadmap specifically customized for each and every job group in NAVER - Monitoring the effectiveness of job group-specific competency-building trainings - Establishing HR management and nurturing system with global competitiveness • **Building a great workplace culture** - Regularly conducting organizational culture diagnosis/human rights impact assessment once a year and deriving results-based tasks - Promoting organizational culture improvement activities based on regular diagnosis • **Elevating the human rights management system** - Revising the human rights management policies and conducting human rights impact assessment once a year - Making practical improvement to human rights-risks through a variety of grievance mechanisms	P.62
Supporting mutual growth with the partners and local community	• **Risks** ESG risks in the supply chain, such as violation of laws and regulations, leakage of user information, and unfair trade • **Opportunities** Expanding virtuous cycle of growth between SMEs and the platform in line with the growth of SMEs Raising awareness by enhancing corporate image in the local community	• Building sustainable supply chain ecosystem • Helping SMEs build capacity • Growing together with local community	• Introduced supply chain ESG risk management system to spread ESG management • Became the first platform company in Korea to offer an online ESG self-assessment service for suppliers • Named Best Honorary Company, ranked the highest in the Win-Win Growth Index Evaluation for the sixth consecutive year • Raised the Fountain Fund worth KRW 98.8 billion to support SMEs and creators	• **Short-term goals (-2023)** - Recording 800,000 NAVER Business School members, aimed at helping SMEs build capacity • **Mid- to long-term goals (-2025)** - Maintaining a Best Honorary Company, ranked the highest in the Win-Win Growth Index Evaluation - Expanding the scope of supply chain ESG risk management - Conducting online fundraising training for public interest organizations supporting the underprivileged nationwide, including local communities, four times a year - Continue to expand the number of good stores in the local community and expand sales support for local companies	• **Strengthening supply chain ESG risk management** - Identifying and reflecting human rights risks within the partners' ESG management system - Conducting and improving regular ESG risk assessments • **Expanding the scope of SME capacity building and growth support** - Providing store branding and digital literacy education program Local Brand School for local SMEs in 4 jurisdictions -Conducting the "SME Brand Launcher" for 30 brands to secure brand value and support continued growth of SMEs	P.76

ESG FRAMEWORK

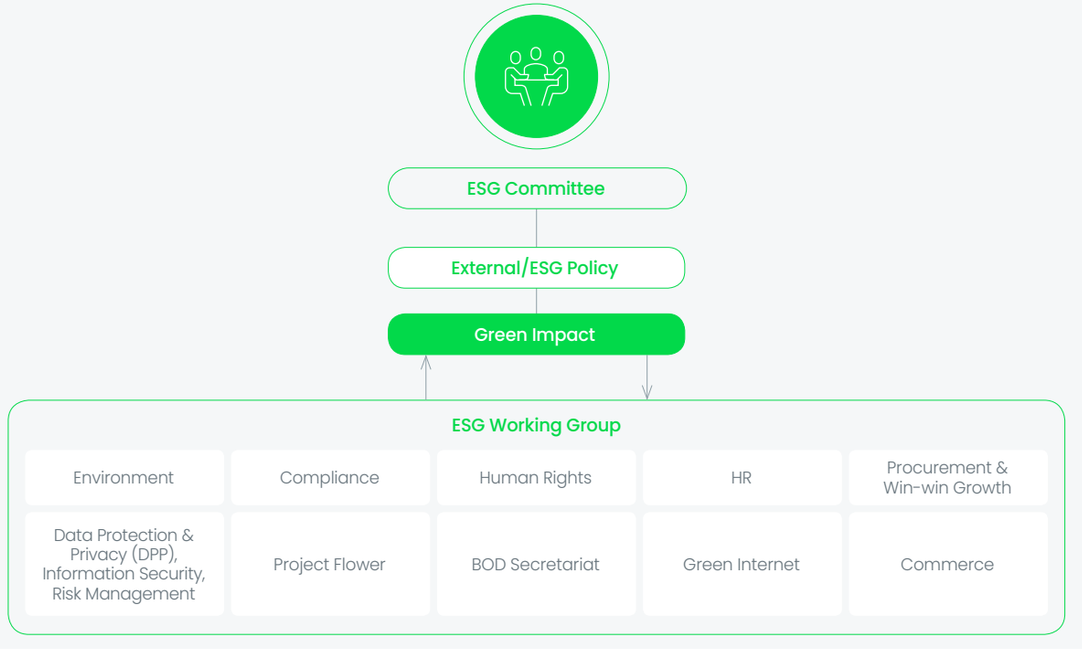
MINIMIZING OPERATIONAL RISK

Strategy	Risks & Opportunities	Strategic Direction	Achievements in 2022	Short, Medium and Long-Term Goals	Action Plan	Pages in This Report
Maintaining and further improving transparency of corporate governance	• **Risks** Negative public opinion and weakened external image due to poor management and lack of leadership • **Opportunities** Enhancing corporate value based on the transparent disclosure of governance structure	• Maximizing shareholder value • Advancing ESG management system • Ensuring sound BOD operation	• Recorded KRW 137.1 billion of cash dividend in 2022 • Complied with 14 out of 15 Code of Best Practices for Corporate Governance • Recognized as a corporate governance leader by MSCI in 2022	• **Short-term goals (-2023)** - Reviewing and disclosing dividend size based on mid- to long-term dividend policy • **Mid- to long-term goals (-2025)** - Further enhancing BOD evaluation system - Building advanced ESG governance	• **Building advanced ESG governance** - Establishing an ESG data management system and expanding its scope to include subsidiaries - Providing support for NAVER's major subsidiaries in building ESG management systems	P.88
Accomplishing 2040 Carbon Negative	• **Risks** Strengthened carbon reduction plans across countries • **Opportunities** Increasing business opportunities due to growing environmental awareness among users	• Striving to reduce carbon emissions • Creating eco-friendly workplace and business sites	• Unveiled NAVER's new office building "1784" with innovate energy-saving technologies (LEED Platinum) • Became the first Korean Internet company to join RE100 to partake in the global movement for energy transition • Became the first Internet company in Korea to join EV100, an eco-friendly vehicle conversion initiative • NAVER's "1784" became the first office building in Korea to introduce renewable energy through a third-party PPA • Expanded its scope of environmental data management to Scope 3 emissions as well as avoided emissions	• **Short-term goals (-2023)** - Achieving 7GWh of company-wide renewable energy consumption • **Mid- to long-term goals (-2025)** - Aiming to switch 30% of corporate fleet to EVs by 2025 - Helping major subsidiaries build climate disclosure system to cater to the trends in the global regulations on sustainability-related disclosures - Expanding services that can contribute to environmental protection as well as disclosing their societal contribution to carbon reduction	• **Striving to reduce carbon emissions** - Reinforcing activities to reduce the environmental impacts of office buildings and data center operations - Fostering eco-friendly products and service solutions - Expanding environmental engagement activities through -partnerships inside and outside of Korea • **Introducing internal carbon pricing system** - Establishing a voluntary internal carbon reduction strategy - Promoting the use of low-carbon technology devices	P.99
Expanding the right to privacy and minimizing cybersecurity risk	• **Risks** Data security related regulations and increasing security issues such as DDoS attacks and hacking • **Opportunities** Preference for services specialized in privacy security due to increasing user data collection in line with expanding platform functions	• Expanding the right to privacy • Increasing contributions to creating a safe tech ecosystem	• Acquired APEC "Cross-Border Privacy Rules (CBPR)" certification for the first time in Korea • Increased the total compensation amount of the Privacy Enhancement Reward (PER) by 176% compared to 2021 • Conducted 3 campaigns in the year for the protection of personal information of SMEs' customers • Established a "Threat Intelligence System" to detect leakage of NAVER user accounts and phishing data	• **Short-term goals (-2023)** - Reinforcing information control and accessibility to expand user rights guarantee • **Mid- to long-term goals (-2025)** - Improving security of security IT ecosystem	• **Improving information control and accessibility across all users** - Establishing a web tool that ensures children's privacy, data protection and safety • **Improving the ecosystem of data security** - Accomplishing at least 3 cases of coverage expansion and functional advancement of Naver's security part's solutions - Sharing NAVER's security solutions as an open source tool	P.109
Conducting responsible business	• **Risks** Strengthening fair trade regulations in Korea for platform companies The need for company-wide response to corporate controversies • **Opportunities** Enhancing stakeholder trust and satisfaction through safe service provision	• Strengthening anti-corruption and compliance management and elevating ethical management system • Elevating company-wide risk management system • Strengthening user protection and social responsibility in services	• Passed the post-certification review of anti-bribery management systems (ISO 37001) • Established CHEC (Consultation on Human-Centered AI's Ethical Considerations) process • Earned "Excellent" grade at the "User Protection Task Evaluation" conducted by the Korea Communications Commission	• **Short-term goals (-2023)** - Establishing an integrated user protection program system within NAVER - Reinforcing the user protection-related task management system • **Mid- to long-term goal (-2030)** - Enhancing internal auditing and risk management system - Strengthening and advancing user protection activities - Addressing user inconvenience/claims and expanding self-resolution support - Maintaining "Excellent" grade at the "User Protection Task Evaluation" conducted by the Korea Communications Commission	• **Reinforcing user protection-related task management system** - Rebranding NAVER's current services by establishing an integrated user protection program system within NAVER - Reviewing user impact and implementing preventive and complementary measures through a pre-inspection process when launching/changing services - Operating a 24/7 monitoring system throughout UGC • **Upgrading internal auditing and risk management** - Enhancing annual/mid-to-long-term internal audit plans to cope with various risks associated with the company's business • **Strengthening user protection and convenience** - Expanding the automatic detection area of X-eye 2.0, an AI-based harmful content blocking program - Real-time detecting/checking through analyzing user complaints by automatic sensing logics - Expanding user voice channels specific for comparatively new services such as mail bots and visible ARS	P.120

ESG FRAMEWORK

NAVER's ESG Governance

ESG Management Structure



ESG Ratings

ESG Rating by KCGS	MSCI ESG Ratings	ESG Risk Ratings by Sustainalytics
A	AAA	Top 12%

* As of 2022

ESG-dedicated Organization

"Green Impact" under the External/ESG Policy Representative is a team solely dedicated to ESG-related matters at NAVER. As an integral part of NAVER's ESG management, the Green Impact Team sets company-wide ESG strategies and directions, as well as managing the tasks associated with each strategy. It also analyzes and responds to ESG-related demands from internal and external stakeholders and presents agenda to the ESG Committee under the Board of Directors based on the status of ESG tasks underway while presenting agenda that must be dealt with by the ESG Working Group and the ESG Committee.

Since NAVER established 7 ESG management strategies in 2020, Green Impact has been monitoring the progress made in the area of each strategy and identifying the demands related to corporate sustainability from external stakeholders. Also, the team has reported such findings to the Board of Directors every year. In 2022, Green Impact reorganized and enhanced the 7 strategies for the sustainable growth of Team NAVER. As a team overseeing ESG-related matters in the company, Green Impact coordinated the direction of tasks by reviewing and discussing the current status on a regular basis jointly with the NAVER ESG Working Group to carry out the 7 ESG management strategies successfully.

NAVER's efforts and dedication to ESG management have also been manifested in its ESG ratings by global and domestic ESG rating agencies, such as Morgan Stanley Capital International (MSCI), Korea Institute of Corporate Governance and Sustainability (KCGS), and Sustainalytics. In 2022, NAVER received AAA from MSCI ESG Ratings, A from KCGS, and ranked top 12% by Sustainalytics.

ESG Working Group

ESG management requires close cross-functional cooperation within a company. Back in 2021, NAVER established an ESG Working Group to elevate the level of company-wide ESG management. The ESG Working Group has since been fostering smoother communication and cooperation among involved departments, bringing about key accomplishments such as developing human rights management policies and employee welfare programs. In 2022, NAVER reorganized the ESG Working Group to elevate its sustainability management through the new NAVER's 7 ESG management strategies, whilst setting ESG strategic tasks and Key Performance Indicators (KPIs) for each department involved in the Working Group.

The ESG Working Group operates year-round, promotes collaboration among departments to carry out and monitor the progress of ESG-related tasks. Further, it proactively discovers future agenda that can contribute to creating social values through sustainable business.

ESG FRAMEWORK

ESG Committee Under the BOD

NAVER's ESG Committee is the highest decision-making body that supervises company-wide ESG-related risk management and business opportunities. The Committee, established under the Board of Directors through a BOD resolution in October 2020, has been actively executing its role.

In 2022, the ESG Committee consisted of 4 directors, including two outside directors (including the chairperson), one other non-executive director, and one inside director. As of 2023, it is composed of three directors according to a resolution made at the 4th regular BOD meeting in March 2023. Outside director Lee Keon-hyeok, with high expertise in governance and communication, was appointed as the new chairman. Chae Seon-ju, head of External/ESG Policy, and Roh Hyeok-joon, who have been part of the ESG Committee since 2022, continue to provide their expertise in managing risks and opportunities associated with corporate sustainability.

In 2022, the ESG Committee was held five times, among which at four committee meetings, members received reports on the implementation status based on NAVER's 7 ESG management strategies, exchanged opinions on sustainability management global benchmarks, and discussed future plans based on NAVER's current status and global trends. In particular, after declaring the "Carbon Negative 2040" objective, the Committee made important decisions that laid the groundwork for elevating NAVER's environmental management to a global level. Such decisions include making decisions on concluding agreements to procure renewable energy and joining various environmental initiatives. In the social sector, the committee monitored the current status and performance of NAVER's human rights management, including the reorganization of the grievance mechanism in 2022 while reviewing efforts to improve the organizational culture. Moreover, the Committee reviewed ways to advance ESG risk management to build a sound supply chain ecosystem. In the fourth quarter, it also discussed possible improvement measures based on the results of the materiality assessment to set out and materialize the direction of NAVER's sustainability management in 2023.

Composition of ESG Committee

Committee name	Composition	Members	Purpose of establishment and authorities
ESG Committee	2 Outside directors 1 Inside director	Lee Keon-hyok (Chair) Rho Hyeok-joon Chae Seon-ju	**Purpose of establishment** - Embed sustainability in corporate management and decision-making - Manage major ESG risks and opportunities **Authorities** - Engage in top decision-making on corporate-wide ESG matters - Discover environmental/social business items centered around sustainability and make decisions on relevant investments - Establish strategies and directions for climate response, ESG disclosure. and external communication - Execute social contributions, etc.

* As of March 2023

ESG Committee Activities in 2022

Meeting No. (Month)	Major items of agenda	Classification	Participation rate (4 persons)
1 (03)	Publishing the ESG Report 2021 and a task progress status for Q1 2022	Report	100%
	Progress in securing energy	Report	100%
	Post-report on donation for restoration of wildfire disaster	Report	100%
2 (08)	Joining the global environmental initiatives and making a disclosure	Approval	100%
	Progress in ESG enhancement task status and plan for 2022	Report	100%
	Donation for heavy rain damage restoration in the central region of Korea	Report	100%
3 (10)	Concluding an agreement to adopt renewable energy at 1784	Approval	100%
	Joining the EV100 initiative	Approval	100%
	Signing an MOU to establish an ecosystem for recycled plastics	Approval	100%
	2022 ESG enhancement task status and future plans	Report	100%
4 (12)	Signing an MOU for RE100 implementation and ESG value dissemination	Approval	100%
	Signing an MOU for community ecosystem restoration activities	Report	100%
5 (12)	Advancement plan for 2023 NAVER's 7 ESG management strategies	Report	100%
	Human rights management status and plan	Report	100%

ESG Ratings of NAVER (Overall Grade)

Classification	2020	2021	2022
KCGS	A	A+	A
MSCI	A	AAA	AAA
Sustainalytics	Top 18%	Top 11%	Top 12%

STAKEHOLDER ENGAGEMENT AND COMMUNICATION

NAVER's major stakeholders include its users, employees, investors and shareholders, partners, local communities, and the government. NAVER believes that stakeholder's opinions and inputs enable us to provide better services; spread economic, social, and environmental values both inside and outside the company; and create positive impacts.

NAVER's 6 Stakeholders

We strive for mutual communication and interaction with our stakeholders, and thus operate diverse stakeholder communication channels 24/7, enabling them to engage with us conveniently. In addition, we identify risks and opportunities that may derive from our business operation by taking stakeholders' main Areas of interest into account. NAVER then manage the risks properly and disclose relevant information transparently.

	Users	Employees	Investors & Shareholders
Engagement & Communication	• NAVER's official website, blog, café • NAVER Customer Center • Privacy Enhancement Reward (PER) • Transparency Report, Privacy Whitepaper, Personal Data Protection Report • NAVER-SAPI AI Report • Integrated Report	• The company's internal portal "CONNECT" • With U, kNock, NVO Channel, Human Rights Hotline – distress-handling channels • 2580 – a one-stop communication channel for any inquiries related to company life, overall company policies and standards • NAVER Valuable Opinion – a labor-management council • Code Day – company information sessions to share NAVER's philosophy and values for new recruits of the company • Leader Class aimed at improving the organizational management capabilities of leader positions • Welcome Survey conducted to newly hired to assist their adaption to the company • Annual employee engagement surveys to diagnose and monitor organizational effectiveness as well as employee satisfaction and work culture in general	• Annual general meeting (AGM) • Analyst Day • Non-deal roadshow (NDR) • Conference call to announce earnings results • 1:1 meeting • Shareholder engagement • Business Report • Audit Report • Integrated Report • Corporate Governance Report
Main Areas of Interest	• Prevention of personal information leakage • Technology ethics, Management of harmful content • Guarantee of service stability, service quality improvement • Development and launch of new services • Service information and policies • Communication with the company • Corporate social and environmental responsibilities • Accessibility to new technology	• Fair performance evaluation and reasonable compensation • Growth and self-improvement opportunities • Safe and pleasant work environment • Competent welfare program • Corporate culture with respect for human rights	• New businesses for continuous growth • Overseas business strategies aimed at expanding global market share • Financial performance • Dividend payout ratio • Transparent disclosure of business information and governance system • Management of environmental footprint of NAVER's services and fulfillment of social responsibilities
NAVER's Response	• Operates multiple communication channels, NAVER Customer Center • Sets a Business Continuity Plan to ensure service stability and security • Discloses related information through Personal Data Protection Report, Transparency Report, etc. • Strengthens users' right to self-control of personal information • Strengthens the content monitoring system to manage harmful content • Provides sustainability-driven and eco-friendly services • Expands digital accessibility for all user through NAVER NULI Project	• Hosts various communication channels between the management and employees, including Companion Day, HR Shares, CONNECT announcements, etc. • Provided educational programs by job type aimed at developing employee capabilities, such as hosting "Engineering Day" and cooperation with top-notch academic institutions including KAIST and Seoul National University • Runs diverse programs for psychological support sessions, health management, and welfare • Reorganized the employee grievance-handling channels in 2022 • Introduced a new working system "Connected Work" and conducted an effectiveness study after a beta-period	• Actively communicating with the shareholders by sending out CEO letter to shareholders and through IR meetings and earnings results presentations to communicate with shareholders • Set and implemented 3-year shareholder return policy • Published Business Report, Integrated Report, and Corporate Governance Report for transparent disclosure of the company's performance and governance
7 ESG Management Strategies	• Establishing a platform for ESG value creation • Expanding the right to privacy and minimizing cybersecurity risk • Conducting responsible business	• Ensuring employee growth and satisfaction • Conducting responsible business	• Maintaining and further improving transparency of corporate governance • Accomplishing 2040 Carbon Negative

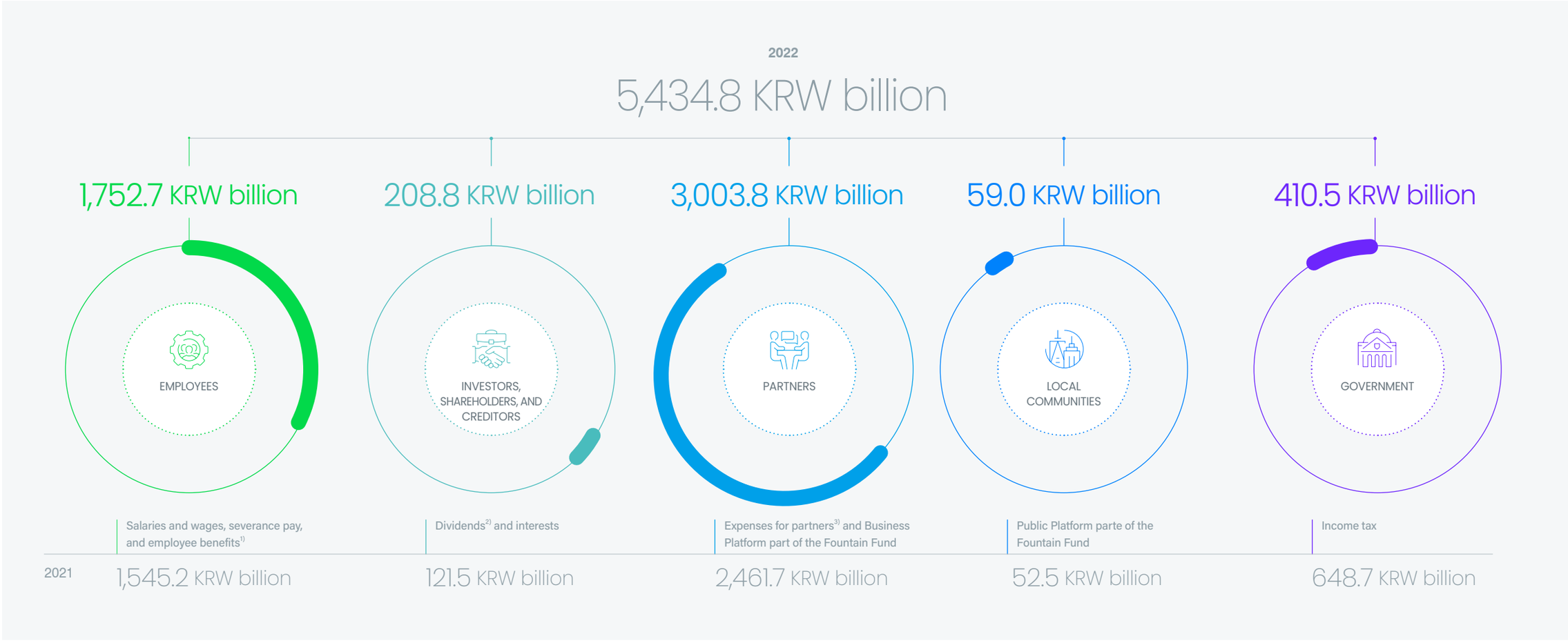
STAKEHOLDER ENGAGEMENT AND COMMUNICATION

	Partners	Local Communities	Government
Engagement & Communication	• Voice of Partners (VoP) • Partners Line – a channel for suggesting mutual growth and cooperation • Dispute mediation system • Business Ethics Consulting Center • D-Commerce Program to provide education, consulting services, and diverse fund support to help small business owners start and foster their online businesses • NAVER Business School – a online education service to help on/offline SMEs and creators achieve digital transformation and growth • D-Commerce Report • Project Flower Report • DEVIEW – a conference for developers • Design Colloquium • Search Colloquium • Industry-academia collaboration in Korea and overseas	• Digital education program offered by NAVER Connect Foundation • Project Flower to support local small business owners • Operation of NAVER Customer Center and Business Ethics Consulting Center • Operation of nation-wide NAVER Square (Square Seoul (Yeoksam, Jongro, Hongdau), Square Busan, Square Gwangju) • Happybean Donation Platform	• Business Report • Audit Report • Integrated Report • Corporate Governance Report • NAVER portal • Industry/academia/research technological cooperation, programs to foster startups • Participation in SME support programs ran by each government organization • Public service support activities • Association memberships and participation
Main Areas of Interest	• Education and infrastructure support for SMEs and startups • Support for growth opportunities, such as business expansion • Support for ESG risk management of partners	• Increasing accessibility to digital technologies for the digitally disadvantaged • Facilitation of regional economies, Supp ort for local small business owners and creators • Reducing digital divide between regions and groups	• Anti-corruption and compliance with regulations • Establishment of fair trade • Transparent tax payment and disclosure of corporate information • Strengthening of cooperation and partnership with private sector • Support for state-of-the-art technologies of IT industry • Nurturing tech startups and IT talent
NAVER's Response	• Passed the post-certification review of ISO 37001 in 2021 and obtained the certification in 2023 • Strengthened the internal control system and complied with regulations • Received an ethics pledge from employees across the company • Raised the Fountain Fund of Project Flower to support partners • Provided partner growth support programs through the D-Commerce Program • Provided ESG diagnosis check list, consulting, and education to procurement partners • Expanded the curriculum of NAVER Business School and offered benefits to trainees • Provided education on personal information protection to partners	• Provided software education programs customized to each age group and digital accessibility trainings through NAVER Connect Foundation • Developed and provided care services using IT technology such as CLOVA CareCall • Expand digital accessibility through NAVER NULI Project • Allowed local SMEs and creators to use NAVER Square free of charge as a base for growth • Supported programs and software for local SMEs such as NAVER Local Marketplace Grocery Delivery and Smart Place	• Passed the post-certification review of ISO 37001 in 2021 and obtained the certification in 2023 • Strengthened the internal control system and complies with regulations • Collaborated to provide seamless communication in the event of disasters and calamities • Signed an agreement to use NAVER's IT technologies, such as CLOVA CareCall at local governments and healthcare institutions • Provided the Cloud Platform to public organizations • Continued to increase the recruitment and development of outstanding talent
7 ESG Management Strategies	• Supporting mutual growth with the partners and local community • Conducting responsible business	• Supporting mutual growth with the partners and local community • Conducting responsible business	• Supporting mutual growth with the partners and local community • Conducting responsible business • Maintaining and further improving transparency of corporate governance

STAKEHOLDER ENGAGEMENT AND COMMUNICATION

Value Sharing with Our Stakeholders

In 2022, NAVER's total socio-economic value distributed to its stakeholders amounted to KRW 5,434.8 billion. The total amount of shared value increased by 13%p compared to year 2021's KRW 4,829.6 billion. Going forward, we will continue to distribute socio-economic values with its stakeholders as a way to fulfill our corporate social responsibility.



[1] Equivalent to 'welfare expense' in the 2022 consolidated financial statements

[2] KRW 137.0 billion of quarterly dividend was paid after the BOD resolution on November 2, 2022

[3] Includes sales commission, payment commission, provisions for NAVER Pay, content commission, and cost of sales

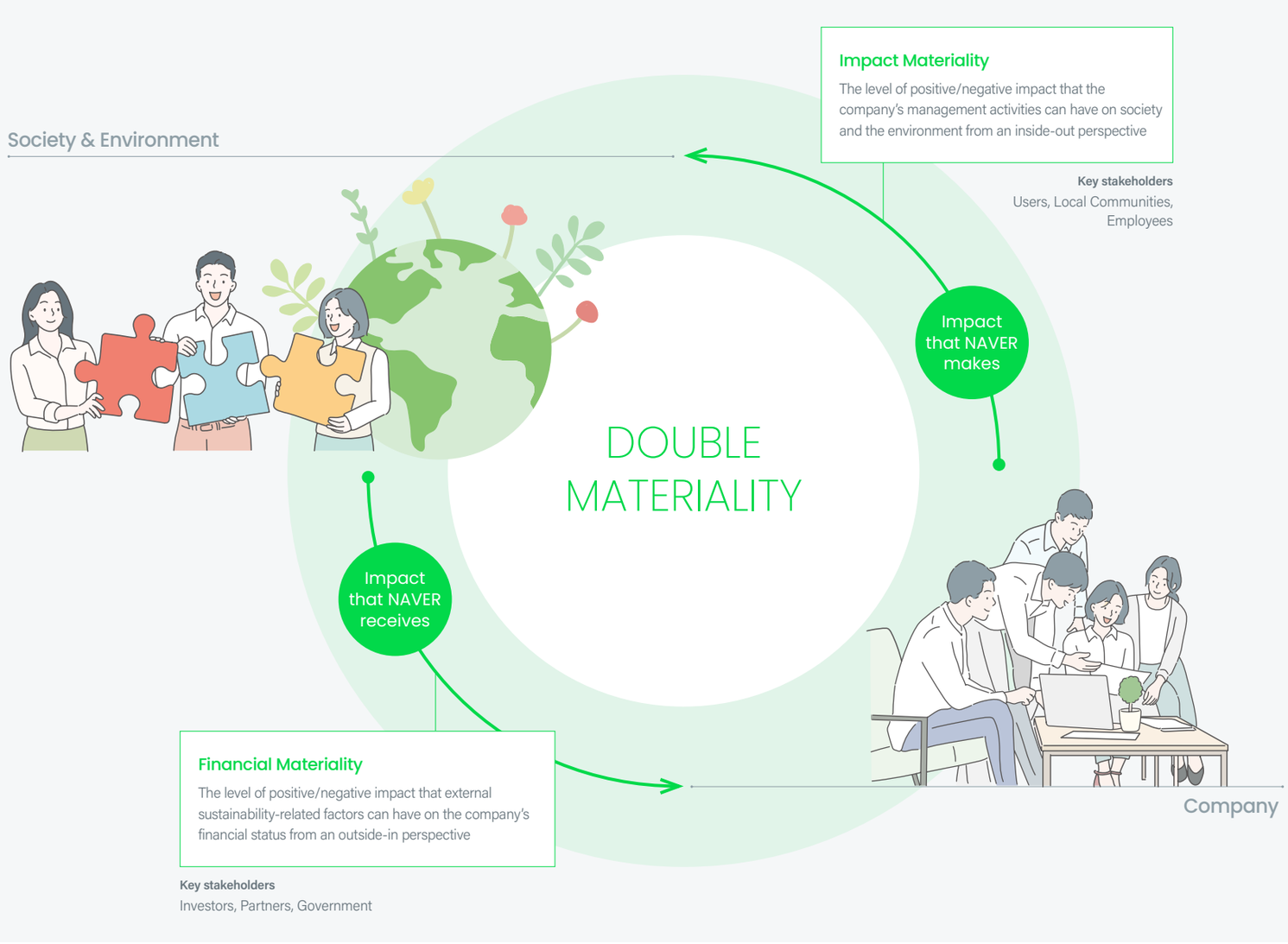
2022 MATERIAL TOPICS OF NAVER

Double Materiality Analysis

NAVER conducted a materiality analysis to identify material economic, social, environmental, and governance topics that require focused management. We comprehensively analyzed the results of external evaluations, policies and regulations, media coverage, as well as leading cases and trends in industry related to sustainability. In particular, in the process of the materiality analysis, we conducted a survey on NAVER investors and those in charge of ESG-related departments in the company to collect their opinions and suggestions on topics that NAVER must prioritize.

Prior to selecting material topics for 2022, we created a pool of tentative issues and compared it to those reported in the 2021 Integrated Report. We then integrated or modified overlapping issues to reflect the latest ESG reporting trends and facilitate stakeholder communication. Reflecting the growing interest in the eco-friendly platform business, we added the topic of "environmental impact management of services." Afterward, we evaluated the financial impact and stakeholder impact for the 20 confirmed reporting topics. Subsequently, we analyzed the social-environmental impacts of the topics which reflect the correlation between the external environment and business activities. Thus we selected material topics through a "double materiality analysis" considering both the social and environmental impact of the external environment on business activities and vice-versa.

Importance of all ESG issues increased due to the rising demands on corporate social responsibility and sustainability in NAVER's business operation. Thus in 2022 we revised the previously reported three tiers of material topics to two tiers. As a result of the materiality analysis, the most important 6 topics were selected as Tier 1.



2022 MATERIAL TOPICS OF NAVER

2022 Materiality Analysis Process

STEP 1. Stakeholder Input

Collecting Stakeholder Input

Communication with NAVER's major stakeholders

- Gathering opinions on important topics through various communication channels
  - Users, employees, investors and shareholders, partners, local communities, and government
- Survey-based materiality analysis and selection of interviewees
  - Employees, investors, experts, etc.

STEP 2. Identification

Identifying issues and forming a pool of issues

Forming an issue pool

- Reviewing disclosure requirements: Global ESG disclosure index (GRI Standards, SASB, TCFD, CDP, WDI) and domestic and international regulations
- Benchmarking analysis: Study of material issues selected by global peers and advanced ESG companies

Reviewing the issue pool

- Media analysis: Media coverage related to NAVER's ESG, and press releases (January 2022-October 2022)
- ESG trend research: Presentation materials and publications on ESG policies and initiatives inside and outside of Korea (January 2022-October 2022)
- Derived an issue pool: Selected 20 tentative issues by adding new issues, integrating duplicate issues, and revising expressions

STEP 3. Assessment & Valuation

Evaluating and prioritizing

Business importance (x-axis)

- Evaluating the impact on NAVER's revenues, expenses, reputation, and response to regulations
- Aligning NAVER business with ESG strategic directions

Stakeholder importance (y-axis)

- Media exposure analysis and inquiries received from outside
- Analysis of interest level based on interviews with employees and survey results

Social and environmental impact (bubble size)

- Evaluation of the social and environmental impact of the external environment on corporate activities inward
- Evaluation of the social and environmental impacts of corporate activities on the outside of the company outward

STEP 4. Approval & Reporting

Selection of material topics and discussion on the report direction

- Review by ESG departments and external experts
- Surveys on investors and NAVER employees
- Selection of 20 topics for the final report including 6 Tier 1 issues
- Review by the BOD (ESG Committee)

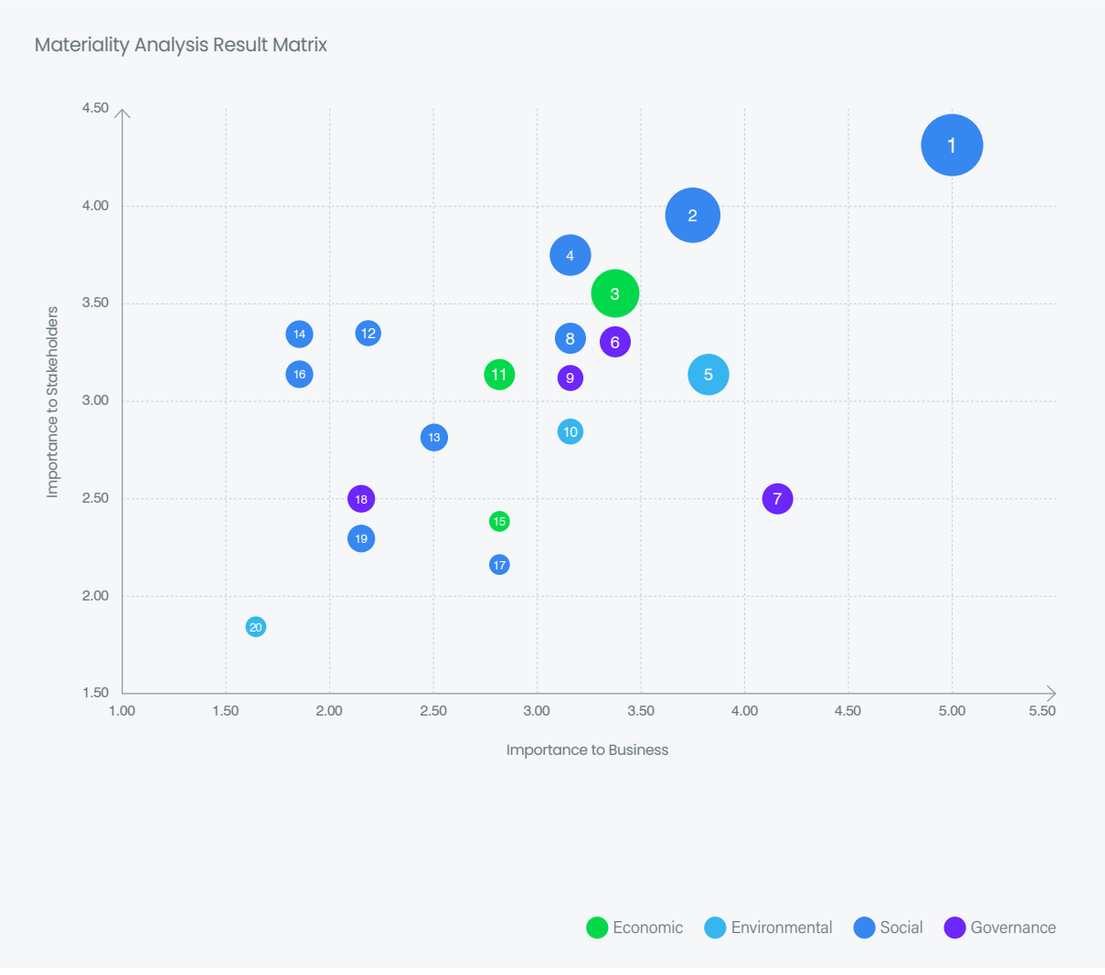
STEP 5. Disclosure & Feedback

Information disclosure and communication

- Disclosure through the Integrated Report and TCFD Report
- Stakeholder communication regarding the content of information disclosure (report inquiries, one-on-one meetings with investors, etc.)
- Actions on domestic and overseas initiatives and evaluations

2022 MATERIAL TOPICS OF NAVER

2022 Materiality Analysis Results



2022 Material Topics

List of Material Topics

● Very High | ○ High

Importance	Ranks of 2022 Material Topics		Importance to Business	Importance to Stakeholders						Importance to Society and Environment		Total
				Users	Employees	Investors and Shareholders	Partners	Local Communities	Government	Inward	Outward	
Tier 1	1	Data security and privacy	5.00	●	●	●	○		●	●	●	
	2	User protection and service responsibility	3.75	●	●	○	○		○	○	○	
	3	Strengthening of global competitiveness	3.44	○	●	○			○	○	○	
	4	Respect for human rights	3.14	○	○	○	○		●		○	
	5	Response to climate change	3.75		○	○		○	○	○	○	
	6	Business ethics and compliance	3.44	○		○	○		●	○	○	
Tier 2	7	Integrated risk management	4.06	○	○				○	●		
	8	Attracting and nurturing talent	3.13		●	●		○	○	○	○	
	9	Sound corporate governance	3.13		○	●			○		○	
	10	Environmental impact management of services	3.13	○			○				○	
	11	R&D and technological innovation	2.81		○	○			○	○	○	
	12	Win-win cooperation with SME partners	2.19		○		●		○		○	
	13	Diversity and Inclusion	2.50					●				
	14	Digital literacy and accessibility	1.88	○		○		●	○		○	
	15	Fostering and investing in startups	2.81						○			
	16	Local community engagement and communication	1.88	○				●	○		○	
	17	Employee health, safety and welfare	2.81						○			
	18	Transparent ESG information disclosure	2.19			○			●			
	19	Supply chain ESG management	2.19				●					
	20	Business site waste & water resources	1.56					○				

2022 MATERIAL TOPICS OF NAVER

Management of Material Topics

In 2022, the material topic rated as the most important to NAVER's business and stakeholders was "data security and privacy," followed by "user protection and service responsibility," "strengthening of global competitiveness," "respect for human rights," "response to climate change" and "business ethics and compliance." "Data security and privacy," "user protection and service responsibility" and "strengthening global competitiveness" were constantly confirmed to be the most important topics for NAVER as their importance rankings were at the top of the list as in previous years, while "respect for human rights" and "response to climate change" increased in importance and were selected as new Tier 1 material topics in 2022. In 2022, Tier 1 topics were spread out equally throughout the areas of economy, environment, society, and governance, reflecting industry trends and stakeholder requirements. This result demonstrates that ESG risk management and corporate value enhancement must be approached from a variety of angles throughout all areas of corporate sustainability.

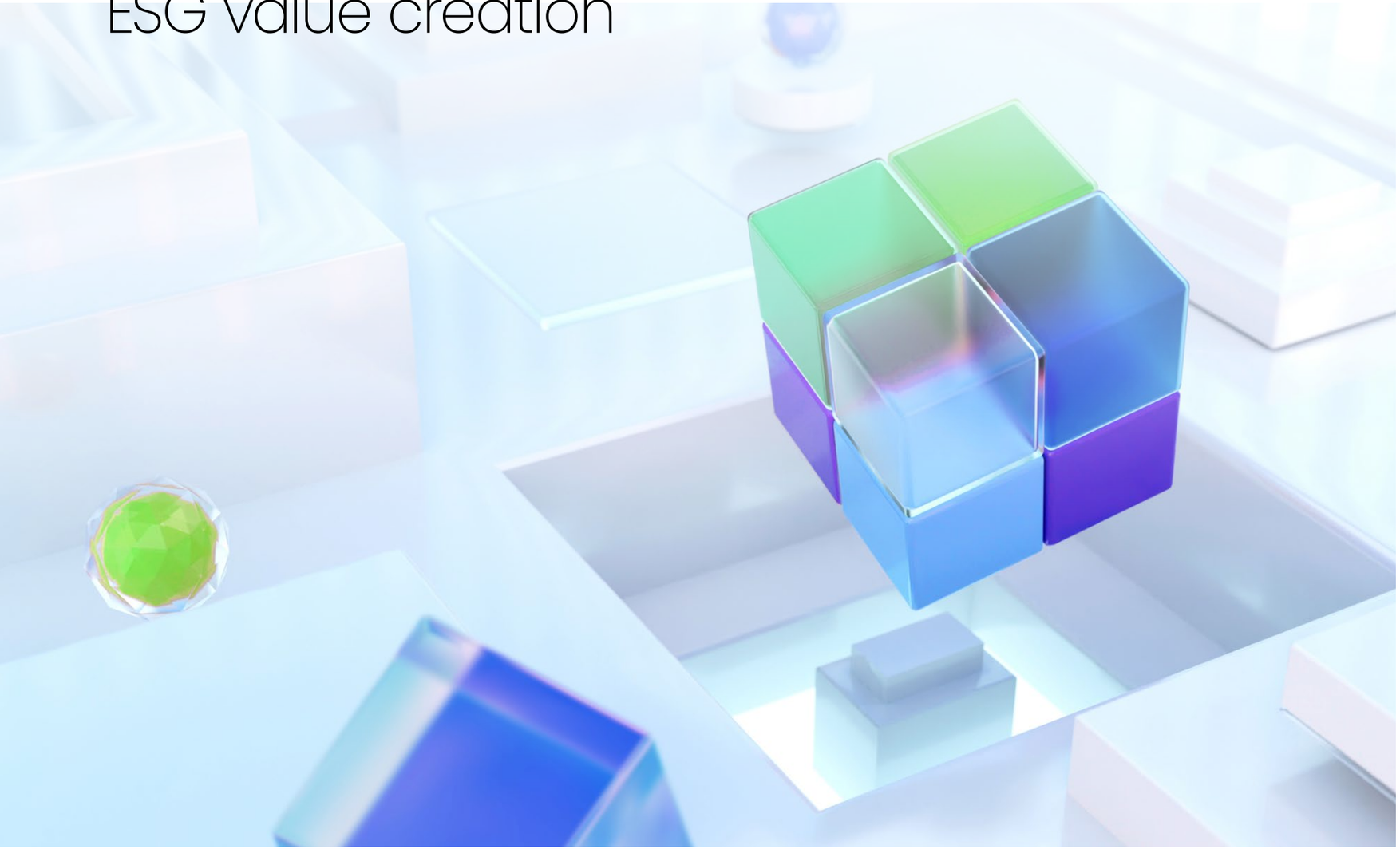
NAVER reported the results of its materiality analysis to the ESG Committee under the BOD. Through the review of the Committee, we aligned the selected material topics with our mid- to long-term goals and plans, thereby advancing NAVER's 7 ESG Management Strategies. In addition, Tier 2 topics are also deemed to be important to our business. Therefore we derived detailed improvement tasks for material topics in both Tier 1 and 2 and have been managing the performances accordingly.

Tier 1 Material Topics and Performances

Tier 1 material topics	In-depth analysis	NAVER's response	Performance	7 ESG Management Strategies
Data security and privacy	• Personal information impact assessment • Security vulnerability diagnosis • Security bug bounty	NAVER should manage data security and personal information protection as top priority in running its IT platform business. We therefore do our best to protect users' data and privacy rights by strengthening the security function of our services and complying with domestic and international data protection laws and regulations. We are striving for transparent and inclusive "privacy protection for all" by improving our data protection management system and actively disclosing related content.	p.109-119	• Expanding the right to privacy and minimizing cybersecurity risk
User protection and service responsibility	• User satisfaction survey • User VOC analysis • User protection performance evaluation	NAVER is taking the lead in eradicating illegal posts across the internet through the "Green Internet Campaign," guaranteeing users' freedom of expression and intellectual property rights and restricting harmful content to ensure digital safety so that users can safely use the NAVER platform. In addition, in the event of an issue, we prioritize the protection of NAVER users through prompt response. We also make a wide range of efforts to minimize service inconvenience through user communication channels.	p.120-126	• Conducting responsible business
Strengthening of global competitiveness	• Supply chain ESG risk assessment	NAVER entered the North American commerce market in earnest with the acquisition of Poshmark in October 2022 as a way to strengthen its global competitiveness. We are also continuing win-win cooperation with a variety of partners to strengthen our service ecosystem at home and abroad as well as to expand our global market. In particular, we share the value of ESG management to our procurement partners (suppliers) that make up NAVER's supply chain and support their sustainable management in a variety of ways.	p.23-44, p.60-61, p.76-83	• Establishing a platform for ESG value creation • Supporting mutual growth with the partners and local community
Respect for human rights	• Organizational effectiveness diagnosis • Human rights impact assessment • Grievance-handling channel	NAVER strives to respect and protect the human rights of everyone connected to the company. In response to current situation where institutional and social demands for corporate human rights management are increasing, shown as the active discussion on the Framework Act on Human Rights Policy, NAVER, led by its new management, recognizes the importance of an organizational culture in which everyone is respected and endeavors to facilitate communication with each other. In particular, we make multifaceted efforts to preemptively respond to human rights-related issues and increase employee satisfaction.	p.62-63, p.69-75	• Ensuring employee growth and satisfaction
Response to climate change	• Environmental impact assessment	Having established a "Green Plan" to reduce our net carbon emissions to zero in response to climate change, NAVER is putting the plan into action, starting with reducing our carbon footprint. We have set goals for 2040 Carbon Negative, 2030 RE100, and 2030 EV100, and made a variety of efforts to achieve them, such as concluding PPA contracts and reducing idle power by streamlining data center operations.	p.99-108	• Accomplishing 2040 Carbon Negative
Business ethics and compliance	• Anti-corruption impact assessment • Business Ethics Consulting Center	Stakeholders who provide and receive a variety of information inside and outside the NAVER platform expect fair competition and transparent operation of all services at the company. Accordingly, we comply with domestic and foreign laws and regulations related to the online market and fair competition while operating our business transparently through NAVER's own Integrity Code.	p.130-133	• Conducting responsible business

ESG COMMITMENT 1

Establishing a platform for ESG value creation



2022 KEY HIGHLIGHTS

Published an eco-friendly commerce performance report
(June 5, 2023)

NAVER Green Commerce Report 2022

Launched a service based on eco-friendly fulfillment service
(Nov. 2022)

NAVER Guaranteed Arrival Service

Replaced approximately 206 million paper documents with NAVER's electronic document service
(As of 2022, cumulative figure)

206 million paper documents

Improved the NAVER Map service for EV users

NAVER Map EV charging station information search

Maximizing ESG Value Creation

NAVER has evolved from a search platform to a comprehensive IT platform, extending its business to encompass a wide range of services including commerce, financial payments, and location-based information provision. These expansions are built upon the vast amount of data collected from the search platform. In particular, NAVER's services are gaining significant traction in the market for its novel approach in business, eliminating unnecessary procedures and prioritizing individual users' preferences and convenience.

MANAGEMENT APPROACH

As the influence of NAVER as a global ICT company continues to expand, there is a corresponding increase in industry regulations and stakeholder demands placed upon the company. Starting with the commerce business, in which the company holds significant market influence, NAVER is proactively responding to these demands. NAVER seeks for various means to bring about positive changes, such as eco-friendly products, green packaging materials, and eco-friendly logistics in the commerce industry. These sectors are also experiencing a rapid surge in demand within the commerce industry. To make substantial improvements, NAVER is actively engaging in strategic cooperation with both large and small business partners. Leveraging our experience in advancing ESG strategies in the commerce domain, we will identify and proactively manage any potential risks and opportunities to, create sustainable value across industries related to NAVER and our subsidiaries in the finance, contents, and cloud service sectors.

OUR KEY PERFORMANCE INDICATORS (KPI)

Providing eco-friendly certification information for products and packaging to enhance consumer accessibility to eco-friendly products

- Provide additional overseas eco-friendly certification for products and packaging in the food and beauty category of the commerce platform

Strengthening SME green sellers' capabilities within NAVER's commerce platform

- Develop and launch a green seller capacity building program for SMEs participating in the commerce platform

Expanding the Eco-friendly E-Commerce Ecosystem

NAVER supports the invigoration of production and consumption of green products through NAVER Shopping, which currently connects more than 550,000 sellers and 20 million consumers, while providing a platform for green brands and greensumers in a bid to expand its e-commerce ESG ecosystem.

NAVER Green Commerce Report 2022

NAVER'S GREEN COMMERCE STRATEGIES

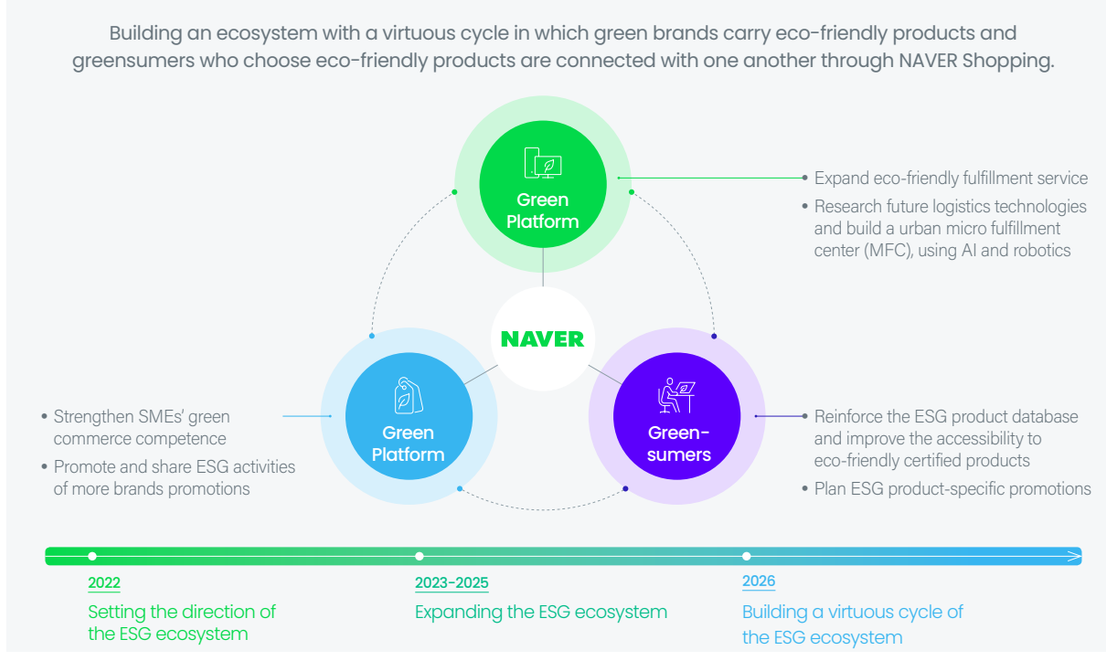
In 2022, NAVER formulated a comprehensive green commerce strategy for the environment comprised of three core pillars – Green Platform, Green Brand, and Greensumer. Within each of these areas, NAVER is actively implementing targeted action plans. The "Green Platform" is centered around the introduction and expansion of green logistics platforms, while the "Green Brand" aims to foster and enhance ESG activities and green products of SMEs while bolstering their capabilities in these domains. The "Greensumer" is committed to helping consumers browse through and select ESG products with ease.

GREEN E-COMMERCE PLATFORM CONNECTING BRANDS AND USERS

Improving Consumer Access to Green Products

NAVER provides eco-friendly certification information through the product management function of the Smart Store Center and product detail pages to help consumers better access eco-friendly product information on NAVER Shopping and to enable sellers to utilize eco-friendly certification information as a competitive edge in product sales.

Strategic Direction of Green Commerce



Certified by the Korea Environmental Industry & Technology Institute (KEITI), Korea Eco-Label, shown on NAVER Smart Store is one of the prominent eco-friendly certifications in the country. The Eco-Label certification, given to only those exhibit significantly enhanced environmental performance compared to the alternative products, encourages companies to proactively engage in environmental improvement efforts. Its purpose is to inform consumers with the environmental aspects of the products, while motivating companies to develop and manufacture green products. The Low Carbon Certification is given to products with a carbon footprint lower than or equal to the maximum allowable carbon emissions or the minimum carbon reduction rate specified for the given product. Moreover, considering the increasing demand from consumers seeking vegan products in the food and cosmetics sectors, we also offer information on the Vegan Certification provided by the Korea Agency of Vegan Certification and Services (KVCS), the first vegan certification body in Korea, and is specifically designed to cater to the needs of individuals seeking products free from animal ingredients.

Moving forward, we plan to provide not only domestic eco-friendly certification information, but also overseas ones with public confidence.

Year	ESG-related Certification	Classification	Certification Agency	No. of Products Registered with Certification Information
2021	Korea Eco-Label	National certification	KEITI	3,741
2022	Low Carbon Certification	National certification	KEITI	154
	Vegan Certification	Private certification	KVCS	642
Total				4,537

Expanding the Eco-friendly E-Commerce Ecosystem

NAVER organizes over 10 special offers each year, aligning them with environmental anniversaries such as Environment Day and Earth Day, with an aim to raise awareness about ESG messages and promote products from green brands to its user base at NAVER Shopping and to guide shoppers towards a green shopping experience. In April 2022, on Arbor Day, NAVER organized the "Green Delivery Week" featuring 312 products from eight brands, all utilizing fulfillment methods with green packaging materials. Consumers who participated in this initiative received reward points of up to 13% of the purchase price. In addition, NAVER donated 1% of the transaction amount to the areas affected by wildfires on the East Coast in January 2022. Alongside this contribution, NAVER conveyed the message that "your shopping becomes a tree" in association with the Happybean campaign. As a result of these efforts, more than 48,000 orders worth over KRW 1.17 billion were generated, with KRW 23.2 million donated to reforestation projects in the fire-affected areas through NAVER Shopping. Furthermore, during the Green Delivery Week, 66,000 users purchased goods and actively participated in the Happybean campaign.

Furthermore, in June 2022, to ensure green shopping continues, we launched the "Green Friday" campaign that designates the fourth Friday of every month as eco-friendly shopping day. On Green Friday, we select and introduce one green brand at a time to provide brands with an opportunity to effectively publicize their eco-friendly efforts and related products while offering users an opportunity to participate in eco-friendly consumption. It is getting a positive feedback in the market. Furthermore, in alignment with the interests of the millennials and generation Z customers, we have been conducting the "Loving Pet Campaign" with pet brands supporting animal rights. For every purchase made, KRW 100 is matched between the brand and NAVER, which is then donated to the project fundraising box opened in Happybean to improve animal rights. The campaign has seen significant results, with over KRW 190 million in donations collected in the fundraising box by the end of 2022, involving approximately 54,000 participants. The funds were used to support the protection of abandoned animals, among others.

ESG Support for Brands and SMEs

As more green brands emerge, the green commerce ecosystem can expand in a better direction. NAVER therefore helps SMEs achieve green transformation and promotes the healthy growth of the green commerce ecosystem. Responding to climate change is a global task, and it not only requires the efforts of each stakeholder, but also produces a variety of opportunities, and thus, NAVER supports small business owners at Smart Store in a variety of ways to foster ESG awareness and help them discover opportunities through eco-friendly efforts.

In September 2022, we developed and launched an online training course "the Importance of ESG for Small Businesses and Practical Implementation" through NAVER Business School. This course serves to educate trainees on the significance of ESG and how to incorporate it into their business operations. They can be also informed of ESG-related government and institutional benefits, as well as eco-friendly packaging methods. Furthermore, as part of our efforts, we specially designed 10,000 eco-friendly paper tapes that are recyclable, even dissolving their adhesive in water. These tapes were provided to 1,000 trainees, enabling them to apply green packaging materials to their product sales.

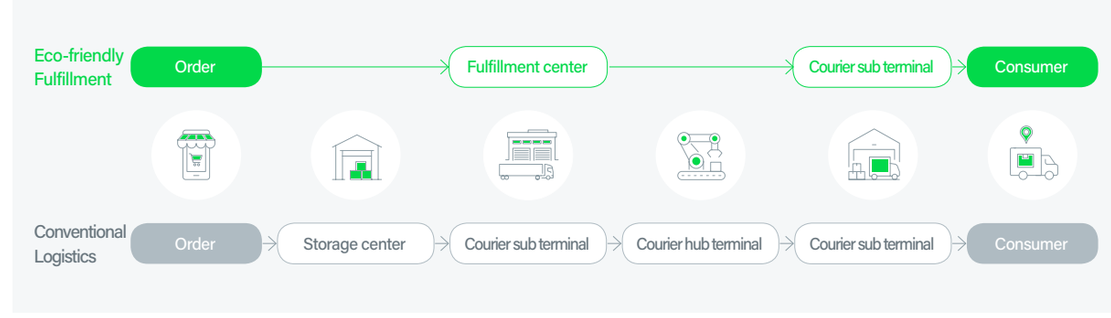
NAVER has been operating the "NAVER Local Marketplace Grocery Delivery" service since January 2019. The service delivers fresh food ingredients, side dishes, and snacks to users' doorsteps from traditional offline markets on the day of the order. In partnership with various organizations, we have been striving to promote eco-friendly packages by providing eco-friendly bags made of 100% biodegradable resin to stores at NAVER Local Marketplace Grocery Delivery platform. By distributing 1.02 million eco-friendly packaging materials (860,000 bags and 160,000 ice packs) from 2020 to 2022, NAVER Local Marketplace Grocery Delivery was able to earn an eco-friendly marketing effect as a short-distance shopping base, which enables to reduce carbon emissions, in addition to consumer trust. As such, NAVER is making great efforts to achieve ESG innovation together by supporting the ESG activities of various partners, from brand companies within the NAVER platform to competitive manufacturers, to small business owners in neighboring markets across the country and help strengthen their ESG capabilities.

Green Empowering Program

In October 2021, NAVER signed an MOU with SK Chemicals, a leading company in developing eco-friendly materials, to build a collaboration model aimed at helping SMEs strengthen their ESG capability, and launched the "Green Empowering Program" designed to support SMEs' transition to eco-friendly materials. When we received applications from NAVER Smart Store sellers between December to January, more than 500 SMEs demonstrated a high level of interest. KNK, a toothbrush manufacturer, was selected as the first beneficiary, and the company's "6°C Eco Toothbrush" was first released on April 3 through NAVER Shopping. The 6°C eco-toothbrush using recycled materials certified by GRS (Global Recycled Standard) for both the bristles and toothbrush head, reduces the consumption of petroleum-based plastics by 32%. It is the first toothbrush made of recycled material in Korea, which passed the harmful substance test conducted by SGS (Societe Generale de Surveillance), an accredited certification body. In addition, by using vegetable ink on eco-friendly paper certified by the FSC (Forest Stewardship Council) for its packaging, both the product and the package have been developed as eco-friendly products that consider the environment. It has been well received, accumulating over 100 positive reviews from buyers within three weeks of its release. NAVER is actively supporting the promotion of the 6°C Eco Toothbrush through ESG exhibitions and Grocery Shopping corner introductions so that it can meet more greensumers while paving the way to launch three more SME products in 2023 through the Green Empowering Program.

Expanding Eco-friendly Logistics Platform

Since 2021, NAVER has been collaborating with 4PL logistics companies such as CJ Logistics, FASSTO, and Poomgo to provide eco-friendly fulfillment services. Compared to traditional logistics, fulfillment logistics eliminates the transportation process from the seller's warehouse to the collection point, resulting in reduced carbon emissions associated with these movements. In addition, the delivery time is shortened, enabling buyers to receive their orders faster. In November 2022, NAVER introduced the Guaranteed Arrival service, which predicts the delivery date based on the buyer's address and compensates them with NAVER Pay Points if the product fails to arrive by the guaranteed date. This service is being utilized by Smart Store sellers and brand companies to enhance their delivery competitiveness. By continuously expanding the volume of fulfillment within NAVER Shopping, we anticipate contributing to the reduction of carbon emissions. Moreover, NAVER has signed a MOU with SK Energy and Hanjin Express to establish a mid- to long-term eco-friendly logistics platform. We are in the process of constructing an urban fulfillment center (MFC) on an idle site in the city center, which will combine NAVER's AI, robotics technology, and cloud-based future logistics solutions. Through these efforts, we aim to realize an eco-friendly logistics platform that encompasses the entire delivery process, including the last mile.



Exploring ESG Service and Business Opportunities

NAVER is exploring ways to enhance the eco-friendliness of its services, aiming to not only create eco-friendly value but also identify new business opportunities. We are committed to promoting our business by making various efforts that offer users innovative, eco-friendly solutions, thereby generating new values. Our focus is on continuous eco-friendly innovation, enabling us to pave the way for new growth engines rooted in ESG principles.

NAVER Environment Webpage | NAVER E-Documents

NAVER MAP

Improving EV User Convenience

As the number of users using EVs continues to increase, the demand for EV-related information on NAVER Map has also surged. In response, NAVER Map made significant improvement to its EV-related information in 2022. As a result, the convenience of EV drivers has greatly improved. When users search for an EV charging station, they are now able to get detailed information such as charging station availability, operating hours, parking fee, etc., in real time. Going forward, NAVER Map will make continuous efforts to enhance its functions, ensuring that users can enjoy an enhanced and convenient EV experience.

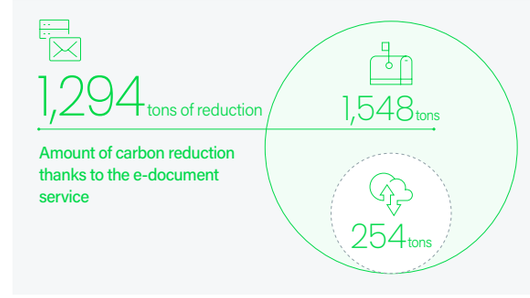
Collaborating with the Korea Real Estate Board

In 2022, NAVER signed an MOU with the Korea Real Estate Board (KREB), called "An Agreement on Provision of Geospatial Information to Vitalize ESG Management." The primary focus of this agreement was to facilitate the exchange of spatial information between NAVER Map and KREB, specifically targeting rural areas. As part of this collaboration, NAVER committed to establishing and disbursing an environmental protection fund to relevant local governments. The first local government to benefit from this agreement was Ulleung-gun, located in Gyeongsangbuk-do. NAVER utilized the spatial information provided by the Korea Real Estate Board to update the street view information of the Ulleung-gun area. Additionally, NAVER contributed KRW 10 million to marine protection funds, which were delivered to the Ulleung-gun Office. Moving forward, NAVER is dedicated to furthering its ESG values through environmental preservation initiatives, alongside the continued provision of spatial information for island and mountainous areas. To this end, we will forge additional agreements with the Korea Real Estate Board, facilitating the ongoing exchange of valuable geospatial data.

E-DOCUMENTS

NAVER is committed to delivering reliable and eco-friendly e-document services as a certified e-document service provider by the Ministry of Science and ICT. Our e-document service offers users the convenience of mobile electronic bills and notices, effectively replacing traditional paper-based documents. By doing so, we actively contribute to reducing social costs and carbon emissions associated with the production and delivery of postal materials. NAVER's electronic document service replaced approximately 206 million paper documents from 2019 to 2022, thereby assumed to have protected 24,000 trees.

Moreover, NAVER developed a method to estimate the amount of carbon reduction through e-documents and underwent the third-party verification. To this end, we first calculated the baseline emissions considering the stages of paper production, mail delivery, and waste paper recycling, assuming that all documents provided by the e-document service were delivered to recipients in paper form through the mail delivery service and then discarded.



In addition, we calculated carbon emissions from using e-documents by adding power consumption of the NAVER data center "GAK Chuncheon" required to store and process data related to e-documents and the carbon emissions generated by users to view e-documents. Each server of GAK Chuncheon processes 16 million e-documents per year, and in 2022, carbon emissions from server usage and e-document views produced 524 tons of CO_2. On the other hand, the carbon emissions generated when the same number of documents were produced, delivered, and discarded by mail estimated to be 1,548 tons. Therefore, the estimated amount of carbon reduction owing to the e-document service was calculated to be 1,294 tons. This result was verified by third-party, the Korean Standards Association, which has enabled us to present carbon reduction amounts to various administrative and public institutions that use e-document services.

NAVER SPECIAL LOGOS

NAVER has a special logo project, aimed at forming a social consensus on environmental protection and climate change. In 2022, we unveiled a series of related special logos on a total of seven environmental anniversaries, introduced and connected blog contents containing eco-friendly information and related organizations, and provided information that enables NAVER users to participate in environmental protection and climate change mitigation activities, such as shopping for eco-friendly products.

CASE STORY

Cooperation with the Presidential Commission on Carbon Neutrality and Green Growth

On World Migratory Bird Day, October 8, 2022, NAVER developed NAVER blog content about the impact of climate change on the lives of migratory birds together with the Presidential Commission on Carbon Neutrality and Green Growth and shared the content with NAVER users. In addition, we posted public service banners to support the promotion of the "Beautiful Choice for Us, 2050 Carbon Neutrality and Green Growth" campaign, and encouraged NAVER users to take part in national efforts to protect the environment and to mitigate climate change.

Eco-friendly special logos in 2022

03.26 Earth Hour
04.22 Earth Day
06.05 World Environment Day
07.03 International Plastic Bag Free Day
09.16 International Day for the Preservation of the Ozone Layer
09.22 World Car Free Day
10.08 World Migratory Bird Day

Jun. 5
World Environment Day X Artist Yoon, Ye-Ji

07.03
International Plastic Bag Free Day X Artist Kim Da-Ye

09.16
International Day for the Preservation of the Ozone Layer

ESG COMMITMENT 2

Ensuring employee growth and satisfaction

2022 KEY HIGHLIGHTS

Year-on-year increase of positive response in Employee Engagement Survey

Average of 10%p increase in positive responses

Effectiveness of the new work system "Connected Work" in 2022

45% of respondents experience "increase in work productivity"

Operation of the social communities "Club Greeny" within the company

180 units of Club Greeny

New Leadership program designed for newly-appointed leaders

4 leadership development classes conducted

Career growth roadmap for technical job group with more than 90% of entry-level staff using it

Providing a growth roadmap

Maximizing Employee Value Proposition

NAVER puts the satisfaction and happiness of its employees at the heart of its sustainable values. We are therefore doing our utmost to build a corporate culture in which employees can unlock their full potential and build trust with each other.

MANAGEMENT APPROACH

Given the rapidly changing nature of the IT industry, attracting and retaining top talents is crucial for company growth, which is why NAVER is focused on recruiting and retaining outstanding talents and, taking a step further to nurture innovative talents. In particular, in 2022, NAVER improved its human rights management system by establishing a unit dedicated to human rights management to ensure that employees' values, the foundation of NAVER's corporate competitiveness, are internalized in the talent education system and organizational culture. NAVER regularly diagnose its organizational culture to identify issues in the organization promptly and enhance s its talent trainings to advance competency by job group. NAVER will continue to communicate actively with its employees and explore new ways to grow with them.

OUR KEY PERFORMANCE INDICATORS (KPI)

Reinforcing Employee Competency Development

- Achieve 100% participation rate for target employees in the review process
- Implement growth roadmap specifically customized for each and every job group in NAVER job group
- Monitor the effectiveness of job group-specific competency-building trainings

Building a great workplace culture

- Conduct organizational culture diagnosis/human rights impact assessment once a year and deriving results-based tasks
- Achieve zero (0%) serious accident rate at workplace
- Promote organizational culture improvement activities based on regular diagnosis
- Establish HR management and nurturing system with global competitiveness

Monitoring and incorporating employee opinions on the organizational culture

- Continue to fully address (100%) all reports received at the NAVER Human Rights and Grievance-handling Channel
- Expanded communication with employees about the organizational culture

Fostering diversity in the workplace

- Maintain female leadership[1] ratio at the level exceeding the national average in the IT sector by at least 10%

[1] Based on the Korea Statistics employment statistics criteria; and correspond to the definition of "manager" by the Korea Standard Occupational Classification

Expanding education and related supports for diversity

- Maintain 100% return rate after maternity/paternity leave

Attracting and Nurturing Outstanding Talents

In order to adapt to changes in the market environment, NAVER does not adhere to a fixed or stereotypical model of ideal talent with regard to its employees. We look for professionals who have passion for their work, find meaning through their career achievements, and value our users. NAVER also provides a stepping stone for our employees to develop and grow by working autonomously and thinking from a user-centric perspective.

EFFORTS TO ATTRACT OUTSTANDING TALENTS

Employees are the greatest asset driving the future of any company. Therefore, NAVER is actively recruiting exceptional talents through various pipelines aligned with the characteristics of each job group to ensure the company's sustainable growth. In 2022, despite the uncertainty caused by the COVID-19 pandemic, NAVER created various pipelines such as internships, open recruitment for entry-level employees, and monthly recruitment of experienced developers to provide opportunities for diverse talents to join NAVER, resulting in the successful recruitment of 599 new employees. Additionally, we have encouraged the attraction of global talents and established a new global career page to provide a positive recruitment experience. Also, our entire application process takes place online to ensure convenience for applicants.

Annual Talent Employment Demand and Forecast Process

NAVER's talent recruitment process begins with its annual forecasting on talent demands. At the beginning of each year, each business unit forecast the resources necessary for the successful execution of its business based on business goals and strategies, and then reports its requirement to the management. In this process, we review the most optimal resources based on Team NAVER's business goals and quantitative indicators, such as personnel and finance, in order to finalize the annual personnel plan for each division.

Developing a Talent Pool and Nurturing Talents

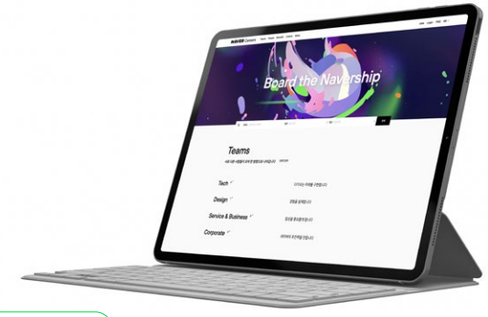
Every year, NAVER meets undergraduate students, prospective graduates, and current employees through various channels such as online talent recruitment briefings, developer meetup events (DEVIEW), Design Colloquium, internships, contests/Hackathons, and academic exchanges. Thanks to these active and diverse programs, NAVER has secured a pool of global talents and attract outstanding talents who aim to grow with the company

In addition, in order to nurture software talents, we provide various opportunities to foster talents who are interested in software development into prospective developers through curricula linked to government agencies, the NAVER Connect Foundation, and educational institutions such as universities.

EMPLOYEE EVALUATION AND COMPENSATION

NAVER Review System

NAVER's particularly focuses on feedbacks during employee evaluation to promote employees' future growth. To this end, we operate a "review" system, which exceeds simple performance evaluations. Through the review, employees are able to view their work performances from a more objective perspective and develop themselves constructively. The review system uses feedback gathered from all employees who have worked together, including colleagues and leaders, in a comprehensive evaluation of their performance and cooperation over the year. To ensure that diverse feedback is not left only as the subjective perspective of individuals, NAVER operates a process for determining the final review rating, the results of which are linked to other HR systems, such as rewards and promotions, and informs employees of the standards and results to help them better understand the findings.



NAVER Careers

No. of Participants in the Talent Pool Event

Online career fair for talent acquisition by job group
- Tech: 4,721 persons
- Service&Business: 1,698 persons
- Design: 1,414 persons
- Corporate: 1,417 persons

Developers' Conference
- DEVIEW 2023[1]: approximately 4,000 persons

Contests/Hackathons
- CLOVA AI RUSH 2022: persons

[1] Held in February in 2023

Internships for those who complete the Boost Camp[2]
- Cumulative total of persons completing the course: 105 in 2017-2021
  - ↳ No. of participants hired: 49 persons

Internships conducted in association with external organizations[3] and industries and universities[4]
- ↳ No. of participants hired: 35 persons

[2] Program designed to nurture developers hosted by the NAVER Connect Foundation
[3] SW Maestro, Codesquad, Codestates, FAST CAMPUS, etc.
[4] Linked with university classes, obtain credits for an internship

Growing Together with Local Community – Boost Camp

Attracting and Nurturing Outstanding Talents

To provide meaningful feedback for employee growth, NAVER's review involves the participation of all colleagues, senior leaders, and subordinates who have worked together during the year. In the first stage, the reviewees write down their achievements for the year and the areas for which they wish to receive feedback. Then their colleagues provide feedback on the reviewees' strengths, areas for improvement, and words of encouragement.

In the comprehensive review stage, the leader of the reviewee's business unit conducts the initial review based on his or her own opinion and the reviews from the first stage on the reviewee's performance and degree of collaboration. Afterward, the second comprehensive review (Calibration Session) is conducted by the next-highest leader of the organization to adjust any discrepancies in the first review's rating criteria.

This process enables us to prevent review ratings from being determined solely from one person's perspective, and thus checks whether the pre-informed review criteria have been applied appropriately aimed at reasonable evaluation results. In addition, we also have set in place a process for submitting objections to maximize the reviewee's acceptance of feedback even after the completion of review process.

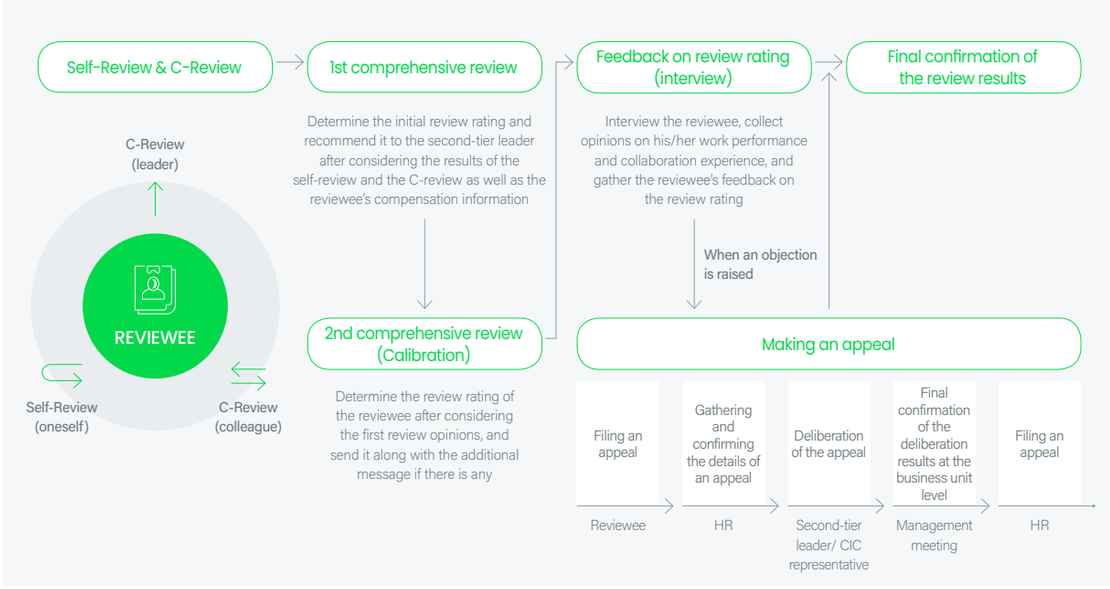
The review also defines the meaning of accomplishment and growth more accurately and enables employee motivation through questions customized to contain the core competencies of each business and team as well as their performance results. The review results are reflected on compensation as well, while the level of reflection may vary by organization. Furthermore, to increase the efficiency and flexibility of the review process, NAVER continuously seek for feedback on various education programs and systems.

In a survey conducted after the review in 2022, 88% of the respondents said that they had received clear feedback on the basis of their review ratings, and 95% of the respondents reported that feedback was useful in their future growth, demonstrating a high level of positive experience. NAVER will continue to monitor the effectiveness of and satisfaction with the review system and develop it so as to ensure continued employee growth.

Share-based Compensation Program

NAVER's share-based compensation programs provide an opportunity for mutual growth of the company and its employees. These programs also set directions for future growth so that its employees can view the long-term value and growth of the company from shareholder's perspective.

NAVER's Review System Process



NAVER's Share-based Compensation Program

1. Stock Options (2019-2021)
   For three years since 2019, we had granted stock options worth KRW 10 million per annum to each employee who had worked for the company more than a year. Our first grant of stock option in 2021 was an opportunity to share the rewards of corporate growth.

2. Payback for Employee Stock Purchase (2020-)
   In order to share the value of the company's future growth through the sense of ownership, we pay 10% of the purchase price as a cash reward when employees purchase the company's stock and hold it for six months.

3. Stock Grants (2021-)
   This compensation program pays KRW 10 million worth of company stocks to each employee every year to enhance employee retention and compensation competitiveness. Without any special selling restrictions, the program allows employees to convert the grants into cash immediately, further raising the attractiveness of the reward program.

Attracting and Nurturing Outstanding Talents

EMPLOYEE COMPETENCY BUILDING AND TALENT DEVELOPMENT

NAVER supports employees' efforts to respond actively to the rapidly changing business environment and to bring innovation to their services. To this end, we have established a training program based on the needs in the field and are operating a self-directed growth support program that allows employees to receive the training they need in a timely manner.

Phase-specific Training

NAVER helps its employees to adapt quickly to their roles at the company and grow continuously by providing step-by-step education programs that meet the needs of new employees, ranging from introductory-level training for new recruits to onboarding programs for newly joined experienced professionals. Furthermore, to enable employees who have grown into potential leaders, we provide a leadership support system that prepares them for the roles and responsibilities required of leaders, ranging from basic leadership training to executive leadership programs.

Composition of Introductory Training for New Recruits

- Onboarding program for new recruits
- Company introduction
- Common soft skill
- Job-specific soft skill
- Soft skill for each job
- Work basic for each job
- Mentoring program

Introductory Training for New Recruits

NAVER provides introductory training that serves as the foundation for the seamless adaptation and growth of new employees. The introductory training includes HR onboarding, team building programs, soft skills training designed to equip employees with the basic skills before being assigned to actual work, and basic job-specific trainings. In addition, after assigning new employees to their actual work duties, NAVER operates a mentoring program that provides close support for their growth. During the HR onboarding program, conversations with current employees, introductions to the organization and job positions help broaden their understanding of the department and job to be assigned to them, instilling them with a sense of excitement about their future at NAVER.

The Soft Skills training equip new recruits with business manners, communication skills, and understanding between job groups for collaboration, the factors that are essential for successful landing at NAVER according to current employees and field leaders. In addition, basic job training that transmits both basic and core knowledge is provided for each job group. Comprehensive soft-landing and coaching in the form an 8-week mentoring program also take place. Furthermore, we are considering expanding certain training courses, of which necessity and effectiveness have been confirmed during the training of new employees, into company-wide common training courses, and we also plan to make online contents for well-received lectures, available to all employees at all times.

Onboarding System for New Recruits

For the first 90 days of their work, NAVER provides new employees with comprehensive support to help them adapt to new environment and demonstrate their abilities. Their first day of work begins with a well-structured program comprising a welcome package, a tour of the company headquarters, and an HR orientation, designed to heighten their anticipation and sense of excitement about working at NAVER. In addition, a mentoring system has been in place in which a buddy and a mentor are assigned to each new employee to provide one-on-one support for adapting to the company culture and carrying out job responsibilities.

We also conduct an onboarding survey on new employees and their buddies every two weeks to identify current status and any support they may need, and the results are provided as a reference for leader interviews to provide practical assistance. We strive to adopting new hires into company culture through an onboarding guide (Wiki) that contains all the information they may need. We send new employees weekly onboarding e-mails containing necessary information every week for the first three months. NAVER also creates opportunities for new employees to socialize with colleagues across fields who joined the company at a similar time to improve their sense of connection within the company. Meanwhile, Code Day is a program in which the philosophy, business areas, vision, and other aspects of Team NAVER are presented to help new employees match Team NAVER's culture. As such, the onboarding program at NAVER helps new hires better understand NAVER, enables them to adapt to the corporate culture, and unlock their full potential.

Leadership Support Program

NAVER provides support for newly appointed leaders to help them understand their role and their team members' work styles in order to build up a synergistic team. We also offer training on the HR System and Labor Standards Act, with which all leaders must be fully familiar, to all leaders and executives. In addition, NAVER holds in-house leadership sessions to help share leadership know-how, such as organizational management and performance management of senior and fellow leaders, to improve leadership more effectively. Performance management, one of the important roles required of leaders, we run a variety of programs: goal setting at the beginning of the year, 1-on-1 meetings throughout the year, and year-end comprehensive review and feedback. These programs help leaders perform an effectively and give proper feedbacks to team members on an annual basis.

Executive Leadership Enhancement Program

For leaders who have grown into executives, we have strengthened our leadership programs to help them drive business and employee growth from a company-wide perspective as key leaders in their respective fields. In particular, in 2022, taking the uniqueness of our executive-led organization into account, we conducted tailored guidance programs for each executive based on a leadership diagnosis that can objectively check the current state, and sought ways to enhance their roles as leaders through networking with external professional instructors and internal executives.

Attracting and Nurturing Outstanding Talents

Job-specific Training

NAVER established the Education Center, dedicated to internal education in 2022 aimed at supporting and facilitating the growth of NAVER employees from a macro perspective. NAVER currently organizes its job groups into 4 different categories: Technical, Service&Business, Design, and Corporate. Working closely with the Growth Committees for each job group, in 2023, we plan to launch a new internal education platform to actively support growth by sharing all contents that could be helpful or useful to our employees. The education programs hitherto provided for each job group will be reorganized, and the necessary skills, attitudes, knowledge, and information required for all employees will be shared, thereby promoting organic collaboration between the organization and job categories. Ultimately, we aim to create synergy within the Team NAVER.

Training and Sharing Programs for Technical Job Group

To promote the growth of a technical job group, which accounts for more than 60% of all NAVER employees, we provide beginner-level growth roadmaps by field, such as front-end, iOS, Android, back-end, data engineering, and AI/Machine Learning, and also provide technical training. In addition, we provide common technical education on the in-house platform, development environment, and security, as well as education on various fields and topics which each employee is free to select and take. The growth roadmap for beginners, introduced in 2022, has so far been used by more than 90% of 503 developers with less than three years of experience, quickly establishing itself as a systematic learning material for basic skills. The arrangement of previously scattered technical elements, the provision of technical mind maps, and the provision of technical inquiry channels have elicited positive responses from employees, receiving a score of 4.5 points (out of 5 points) in the user satisfaction survey. In particular, the results of the satisfaction survey showed that new recruits were able to effectively shorten the onboarding time to four days on average from 2 weeks.

At NAVER, the value of sharing is as important as acquiring technology. We therefore operated 374 knowledge and experience sharing sessions such as Engineering Day, Tech Talk, and Meet-ups, with the number of annual net visitors reaching 14,779 in 2022, to support the acquisition of new technologies.

"Engineering Day" is an in-house technology presentation event started in 2016 to help NAVER developers grow. By having technical staff share their on-site technology application experiences and know-how, the event helps our developers utilize the knowledge when adopting new technologies and platforms. Any NAVER developer can attend and make a presentation at the event. In 2022, 230 cases were shared, a year-on-year increase of approximately 40%. Also, through the Tech Meetup, those who develop similar technology gather to share various experiences, such as know-how to increase work efficiency and test results of newly introduced technologies, illustrating that NAVER's employees grow together in a culture of sharing technology and know-how.

Outcomes of Developer Training

Classification	2017	2018	2019	2020	2021	2022
No. of participants	2,102	3,441	4,674	1,875	6,021	10,140[1)]
No. of courses	94	101	44	75	207	338

[1)] Ran online only due to COVID-19; estimated to be attended by 10,140 people considering the average of 30 persons per course (number of offline education participants before the pandemic)

Education and Training for Service & Business Job Group

Under the philosophy that experience is the most important factor in the growth of employees in the Service & Business job group, we have been conducting the "S&B Experience Sharing Program" since 2022, where senior colleagues and peers share their visions, experiences, and insights. The program is centered on "Visioning Sessions" in which representatives of NAVER's affiliated companies and CIC (Company-in-Company) communicate directly with employees in real time to share the vision of the business, and on "Insight Share," where senior colleagues of the Team NAVER share their know-how to inspire growth. In the first year of the program in 2022, a total of three Visioning Sessions and 12 Insight Shares were held from August to the end of the year. The total number of participants amounted to 4,887, of whom 952 were from the Service&Business job group, which accounts for 46.5% of the total target audience. According to the post-program survey, 98% of the respondents recommended the experience-sharing program, while the satisfaction rating for the lectures was 4.59 out of 5. We plan to continue operating the experience-sharing program at least once a quarter in 2023, and look forward to the participation of more employees.

In response to the widespread adoption of remote work brought about by the COVID-19 pandemic, we conducted the "S&B Skill Enhancement Program" for new employees who lacked learning opportunities within the company. Based on the feedback from the program, we are preparing various skill enhancement training programs for the Service&Business job group in 2023 as well. Thanks to these efforts, the "Education, Training, and Development Opportunities" indicator for the Service&Business job group in the 2022 NAVER's employee engagement survey showed a significant improvement compared to the previous year, with a 17% increase in positive responses. We plan to continue with our efforts to support our employees' growth and enhance their satisfaction by operating a 2-day workshop to further promote networking among employees, CIC-specific onboarding programs, and leader care programs.

Attracting and Nurturing Outstanding Talents

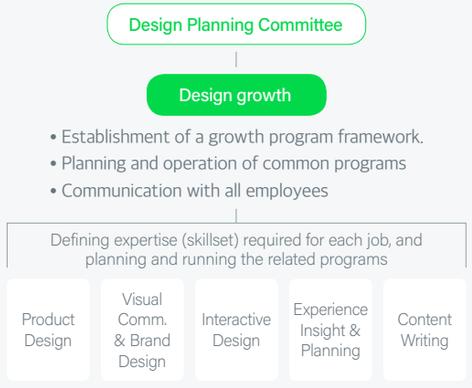
Education and Training for Design Job Group

To provide more concrete support for the career paths of our designers and supplement the existing non-segmented job education, we reclassified all of our designer personnel in 2022 into five sub-categories (Product Design, Visual Comm. & Brand Design, Interactive Design, Experience Insight & Planning, Content Writing) and established dedicated organizations to operate educational programs designed to enhance professional competency and competitiveness according to each specialization. Furthermore, we held a biannual seminar called 'Designer's Week' to share best practices and discuss insights on the work processes of each sub-category, thereby promoting more proactive and voluntary development. We also provide education on digital tools (such as Figma) to enhance design skills and provide training on the patent application process to reinforce R&D capabilities. These efforts have empowered us to respond promptly and more effectively to the rapidly changing industry environment.

Education and Training for Corporate Job Group

NAVER employees in the corporate job group perform tasks that support corporate-level growth from the perspective of the entire company. Compared to other job groups, they have a strong area of expertise in their own function; therefore, in 2022, we reorganized the duty classification in the Corporate job group to better reflect their unique professional expertise prior to developing the growth support system. In 2023, based on the newly reorganized duty classification, we will continue to discuss ways of supporting growth, with the training department and the head of organization for each function playing a central role.

Composition of Organization Dedicated to the Growth of Design Category



Measuring the Effectiveness of Design Education - Example of Education on Figma (digital design tool)

NAVER continuously monitors and improves the effectiveness of the various education programs offered for each job group. In the case of digital design tool education, 78% of all designers participated in the training, and upon completing the course, they were asked to evaluate the program with the question "How much did the training help you to improve your skills?" The result stood at a score of 4.29 points (5-point scale).

4.29/5 points

Support For Employees' Self-directed Growth

In addition to cultivating specialized knowledge by job group, NAVER supports all employees in taking the lead in their own self-development through various programs such as language education, domestic and international training, and study groups. While training opportunities decreased markedly in the years 2020-2021 due to the impact of COVID-19, domestic and international training programs resumed vigorously in 2022. Any NAVER employee can receive support for online and offline education related to their work, such as external training courses, conferences, seminars, forums, and academic societies. Furthermore, our study group program has played an important role in fostering exchanges of technical expertise and knowledge among employees. Meanwhile, to enhance their job skills, we support job-related small group study with educational books and promote active learning through direct exchanges among employees.

Partnerships with External Educational Institutions

In order to conduct technology research and education at advanced level, NAVER has signed industry-academia partnership agreements with such global institutions as the Post and Telecommunications Institute of Technology (PTIT) in Vietnam, Hanoi University of Science and Technology (HUST), and the University of Tübingen in Germany. NAVER actively carries out industry-academia projects through these partnerships. Additionally, it supports all of its qualified employees, regardless of contractual types, for enrolling in part-time graduate schools, encouraging exchanges of knowledge and professional development with academic and research institutions. Furthermore, the KAIST-NAVER Hyper-creative AI Center, located in the NAVER headquarters building, regularly hosts global seminars featuring invited scholars to facilitate exchanges of the latest knowledge and technology between NAVER employees and academics. Through these collaborations, NAVER employees and KAIST research teams have achieved remarkable results, such as jointly submitting research papers to prestigious global AI conferences like ICLR 2022 and ACL 2022. Furthermore, NAVER 1784, which was chosen as the venue for the 2022 Korean Artificial Intelligence Association Fall Conference, serves as a future technology testbed and a global research cooperation hub for cutting-edge technology.

Self-directed Learning by Education Type in 2022

No. of study groups 523 (6 participants on average for each study group)	Study hours 6,184 hours
Participants of external education programs 432 persons	External education hours 19,620 hours
Participants of language education 1,392 persons	Annual support for language education per person KRW 1.23 million
Number of trainees 127 persons	Training hours 191 days

Human-centered Management

NAVER strives to respect and protect the human rights of all those connected to NAVER. In the face of increasing social and institutional demands for companies to implement human rights management, NAVER surveys and diagnoses its human rights management status since 2021. In addition, NAVER has been taking an active part in addressing human rights issues by establishing detailed human rights policy based on international guidelines.

HUMAN-CENTERED POLICY

NAVER is fully committed to respecting the human rights of all stakeholders throughout its value chain. To demonstrate its commitment to fulfilling corporate social responsibility, NAVER signed the United Nations Global Compact (UNGC) in March 2021, endorsing the UNGC's 10 principles related to human rights, labour, the environment, and anti-corruption. In addition, NAVER strictly manages its operations to prevent any human rights abuses based on the Universal Declaration of Human Rights, ILO Conventions, the OECD Guidelines for Multinational Enterprises, and the UN Guiding Principles on Business and Human Rights (UNGPs). Furthermore, based on analyses of potential risks by stakeholder group related to major domestic and international human rights norms, NAVER has established the 10 Principles of Human Rights to manage potential human rights risks rigorously throughout all its business operations. Furthermore, NAVER is striving to ensure that its human rights policy is adhered to not only by NAVER itself but also by its subsidiaries, business partners, and users.

NAVER Human Rights Policy

WE SUPPORT UN GLOBAL COMPACT

HUMAN-CENTERED MANAGEMENT IMPLEMENTATION SYSTEM

Dedicated Human-centered Management Organization

NAVER promotes human rights management to respect and protect the rights of all internal and external stakeholders in its business operations. NAVER has established a comprehensive human rights management system across departments as well as a system for reporting violations to its BOD and top management, with the dedicated Human Rights team playing a central role. Established in 2022, the Human Rights team serves as NAVER's human rights management control tower under the board of directors. Comprised of human rights experts, the team aims to manage and improve our human rights risks in a more professional manner.

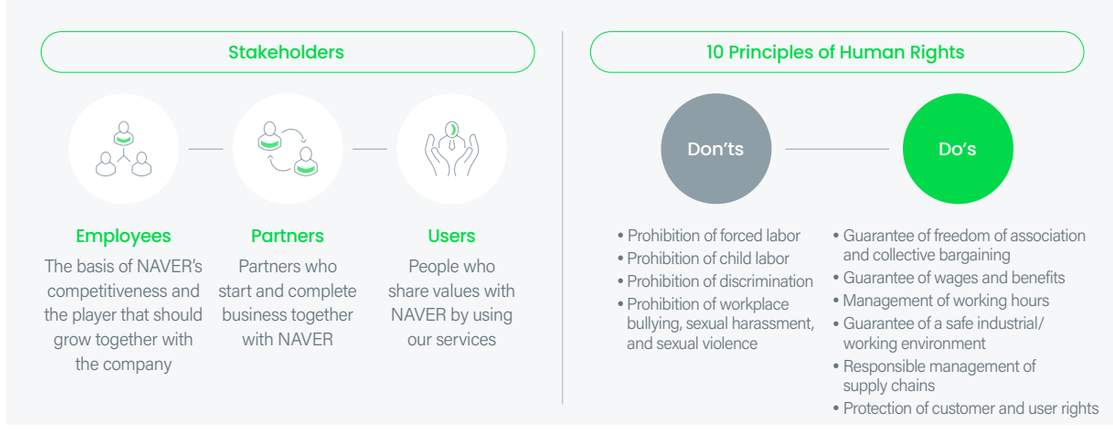
The Human Rights team oversees the major human rights risks arising both internally and externally at NAVER. It periodically reviews and revises NAVER's human rights policy and conducts an annual human rights impact assessment to identify and mitigate potential human rights risks.

In addition, the Human Rights team independently investigates cases received through the human rights grievance-handling channel and reviews them to ensure transparent handling. It also works to improve human rights risks that have been identified through the human rights impact assessment and the grievance-handling channel, through collaboration with relevant departments. Going forward, NAVER will strive to manage and improve service-level human rights risks, such as those related to its partners, AI, and metaverse, in addition to internal human rights risk management.

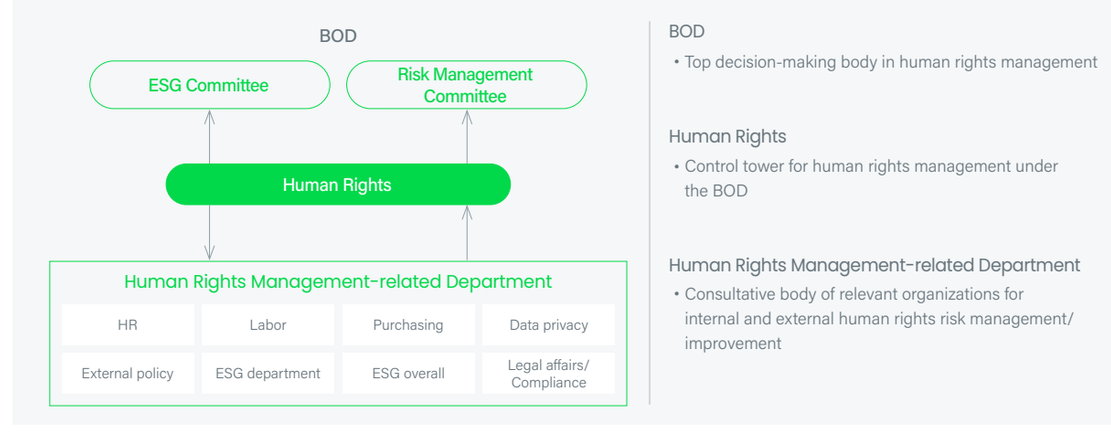
Human Rights Management Implementation System

To cultivate a corporate culture of respect for human rights across its entire business and service operations, a number of departments involved in human rights management cooperate closely with each other to consider various perspectives related to human rights and carry out specific tasks to mitigate human rights risks in NAVER's services and organizational operations including its partners and users. NAVER will continue its ongoing efforts to establish a robust and collaborative structure aimed at internalizing and spreading a culture of respect for human rights.

Stakeholders and NAVER Human Rights Guidelines



Human-centered Management Implementation System



Human-centered Management

Furthermore, NAVER has established a management system at the level of top management and the board of directors to prioritize human rights management in organizational operations. The Human Rights team regularly reports on the status of human rights management to the ESG Committee, a subcommittee within the board of directors. The ESG Committee serves as the highest organization responsible for NAVER's human rights management system, providing specialized and independent feedback on the direction of human rights management initiatives. In the event of human rights issues involving employees, the CEO chairs an independent review committee composed entirely of internal executives, while for C-level executives or business representatives, the Risk Management Committee conducts the review to ensure fairness. In this way, NAVER spares no effort in building a culture of respect for human rights led by top management.

STATUS OF NAVER'S HUMAN RIGHTS MANAGEMENT

NAVER recognizes the need for improvement in protecting human rights of its employees. Since 2021, it has been annually conducting human rights impact assessments and organizational culture effectiveness surveys on all employees including vulnerable group such as pregnant woman and person with disabilities. Through a company-wide diagnosis of the current status of human rights management in 2021, NAVER identified major potential human rights issues that could occur throughout its operations and business. The survey demonstrated two key improvement tasks, rebuilding employees' trust in the company related to workplace harassment and improving the culture of overworking. Therefore, in 2022, NAVER diversified to ensure the independence of grievance-handling channels to address these issues. On the other hand, it introduced a new work system by identifying and investigating the working culture and the needs of NAVER employees. Furthermore, we plan to continue to conduct annual human rights impact assessments to periodically review employees' awareness of the issues and the effectiveness of human rights management in key management areas, identify areas for improvement, and work to address them.

Key Improvement Tasks Implemented in 2022

1 Eradicating Workplace Bullying: Increasing the expansion and independence of human rights grievance-handling channels

NAVER operates various reporting channels so as to allow any employee to report human rights grievances related to work, including workplace bullying and sexual harassment. In particular, in 2022, NAVER strengthened its in-house psychological counseling service, completely reorganized the existing reporting channel "With U", and established the Human Rights team hotline to expand the expansion and independence of its grievance-handling reporting channels.

2 Managing the workload of employees: Strengthening the program to prevent excessive workload

NAVER offers its employees a flexible working environment by operating an optional working-hours system that allows them to commute freely without any mandatory concentrated working hours. Furthermore, in July 2022 NAVER introduced a new working system called "Connected Work," which allows employees to choose between commuting for three days out of five or fully working remotely Moreover, NAVER has made efforts to improve its overwork culture by introducing a "System OFF" policy that blocks access to the system 8 hours before the maximum monthly legal overtime work limit.

Key Improvement Tasks for Human Rights Management

Task	Stakeholder	Description	Improvement made in 2022
1 Building employee trust in the company regarding workplace bullying	Employees	• Efforts to increase employees' trust in company measures when workplace bullying incidents occur, beyond simply eradicating workplace bullying itself.	Greater expansion and independence of human rights grievance-handling channels. • Establishment of a human rights management hotline operate d by Human Rights team • Reinforcement of the in-house psychological counseling service • Reorganization of existing reporting channels
2 Managing the workload of employees	Employees	• Based on compliance with the statutory working hours, we strive to minimize overtime work, and if overtime work is unavoidable, we clearly manage the related situation and provide additional overtime pay to respect the work-life balance of employees.	Reinforcement of the program for preventing excessive workloads. • Adoption of the new working system "Connected Work" • Adoption of "System Off" to prevent excessive workload

Connected Work – New Way of Working at NAVER

In July 2022, NAVER adopted a new work system called "Connected Work" with the aim of creating a flexible and efficient work environment that caters to the needs and job characteristics in the post-pandemic era. NAVER employees can choose between two styles of work. Those who choose "Type O" are given assigned workspace and come into the office for more than three days of the week, while those who choose "Type R" have no restrictions on remote work and use shared desks when they come into the office. Employees are given the opportunity to choose their work system twice a year (once every six months) through a survey, and leaders are guided not to intervene with the employees' choice. The effectiveness and efficiency of the selective work system are evaluated through employee surveys conducted during the selection process, and improvements are made to the system, environment, and infrastructure based on the feedback received.

System Off Policy to Prevent Excessive Workload

To prevent employees from doing excessive overtime beyond the legal limit, we ensure that employees' access to internal systems is blocked eight hours before they reach maximum monthly overtime limit allowed by law.

Human-centered Management

Effectiveness of Key Improvement Tasks and Future Plans

As part of the human rights impact assessment conducted in September 2022, NAVER conducted a survey of employees' views regarding the process to resolve workplace bullying. The results showed a significant year-on-year increase in the positive response rate concerning the education to prevent workplace bullying, company actions in the event of occurrence, and the prohibition of retaliation against whistleblowers.

Results of Employee Survey in 2022

	Positive response rate in 2022	Increase rate from the previous year
The company provides sufficient education for preventing bullying, sexual harassment, and sexual violence in the workplace	77%	44%p
The company's measures to address workplace bullying, sexual harassment, and sexual violence are reliable	62%	35%p
The company prohibits adverse treatment of individuals who report incidents of workplace bullying, sexual harassment, and sexual violence	62%	29%p

At the end of 2022, NAVER conducted a survey on its employees and those of its seven[1)] affiliated companies regarding the effectiveness of the new selective working-hour system called "Connected Work" in order to identify the effectiveness of the new system aimed at managing the workload. The survey results showed that the highest percentage of responses (45%) indicated an increase in personal productivity compared to before the COVID-19 pandemic. In addition to the improvement of work productivity, the survey clearly showed areas for improvement in relation to the office work environment, NAVER's internal culture code, and other matters.

[1)] A total of 7,313 current employees of NAVER Corp. and seven affiliated companies (NAVER FINANCIAL, NAVER Cloud, Works Mobile, SNOW, NAVER Labs, NAVER Webtoon, and NAVER I&S) participated in the survey

During the beta period of Connected Work in 2022, improvements were made to the office work environment, particularly with regard to the issue of congested internal work spaces. By reviewing the work type selection rate and key opinions of NAVER employees, various additional improvements, such as updating of the culture code, will take place in 2023.

In the meantime, the 2022 survey results show that there is still room for improvement in employees' perception of the effectiveness of the internal grievance-handling channels and their trust in the company's responses to workplace bullying and the prevention of retaliation against those who report it. Therefore, NAVER will diversify its systems to ensure independent and active use of the official channels for reporting grievances during work. In order to improve the credibility of the grievance-handling system, we promise to strictly adhere to the following principles as a top priority.

Major improvements implemented in 2022 and 2023 related to NAVER's handling of human rights violations

- NAVER takes measures to investigate whenever a human rights violation is reported.
- NAVER takes such appropriate measures during an investigation as reassigning the victim to a different suitable workplace or putting him/her on a paid leave, if necessary. Any of such measures is to be applied in principle with an unequivocal consent of the victim.
- NAVER strives to prevent secondary harm to victims during the investigation. When investigating a case of sexual harassment or violence, in particular, the utmost care is taken to protect the victim's identity.
- NAVER takes necessary measures, such as disciplinary action and change of workplace, in accordance with internal regulations whenever a human rights violation is duly confirmed.
- NAVER never takes any measure against the interest, including of personnel management, of the victim of, or an employee who report, a human rights violation(s), or such an act(s) that may cause a mental or physical stress as bullying, assault, or verbal abuse, or any failure to stop said mental or physical stress-inducing acts from occurring.

In addition, the Human Rights team composed of legal and labor experts takes charge of the investigation procedures independently in order to address the appropriateness and practicality issues related with disciplinary measures resulting from the existing workplace bullying and sexual harassment/assault grievance-handling channels, which hitherto relied solely on independent external organizations. In particular, the process is sought to include soliciting the opinions of labor unions regarding the results of investigations of cases of workplace bullying.

We will also actively communicate with our internal and external stakeholders to enhance the effectiveness of the reformed human rights grievance-handling system. Furthermore, we aim for maintaining a 100% response rate to the issues received through our human rights grievance-handling channels (kNock, WithU) in 2023, as we did in 2022, and thus manage the goal as the KPI of the Human Rights Division. This will enable us to consolidate our human rights management while improving the effectiveness of the grievance-handling system and building employee trust.

HUMAN RIGHTS TRAINING

NAVER requires all its employees to take a mandatory Integrity Code pledge and provides human rights training to establish a healthy and safe corporate culture. From October to December of each year, NAVER provides sexual harassment and bullying prevention education, as well as disability awareness training for all its employees, as well as specialized training for leaders and higher positions. We also make educational videos available any time by posting them on our internal video-sharing platform "SHARE" and encourage our employees to watch them.

LABOR-MANAGEMENT RELATIONS

NAVER respects basic labor rights such as the right to organize, collective bargaining, and collective action. To ensure freedom of association, NAVER does not require or prohibit specific labor union membership or withdrawal as a condition of employment. NAVER also promises not to discriminate against employees based on their union membership or activities and to refrain from interfering with or obstructing legitimate labor union activities. NAVER strives to promote mutually beneficial, cooperative relations through constructive communication between labor and management, and employees are free to express their opinions on working conditions through labor unions and other means of assembly.

We have set in place a labor-management council, "NVO," in accordance with the Act on the Promotion of Employees' Participation and Cooperation, and actively communicates with employees. The NVO is composed of nine members who regularly meet with management and other employer representatives to convey the voices of employees. In 2022, there were four regular and ad hoc meetings, during which various topics related to working conditions and other issues were discussed.

Furthermore, NAVER has established the Industrial Health and Safety Committee, which is composed of equal numbers of labor and management representatives, to discuss health and safety issues on a regular basis. In order to address the health and safety of employees thoroughly, the company has, since September 2020, invited industrial health and safety experts to provide joint training sessions for labor and management representatives aimed at enhancing their health and safety capabilities. NAVER also strives to minimize the proportion of non-regular employees to ensure employment stability, and has never undertaken any restructuring that would require employee layoffs.

Building a Healthy Organizational Culture

NAVER strives to provide a safe and comfortable working environment for all its employees. To achieve this, the company regularly inspects and manages its facilities, equipment, and other workplace conditions, and provides protective gear and safety training to employees who work in hazardous environments. We guarantee all necessary support and protective measures for vulnerable groups, such as pregnant woman and person with disabilities, to ensure they can work in a comfortable environment. NAVER also promises to take prompt actions according to the relevant laws and regulations in the event of employee accidents, illnesses, or other incidents that occur in the workplace.

EMPLOYEE HEALTH & SAFETY POLICY AND MANAGEMENT ACTIVITIES

NAVER is committed to establishing a systematic health and safety management system to provide a safe environment for its employees, aiming for a "zero" serious accident workplace. To this end, NAVER has developed company-wide health and safety management plans and policies based on the global standards. We have also standardized the annual assessment of health and safety risks at all our workplaces. Each year, NAVER identifies and improves harmful and hazardous factors by conducting assessments of all workplaces (including the headquarters and other working locations). The scope of risk assessment includes not only the safety of facilities but also the mental and physical health of employees. After the assessment, measures are taken to improve and mitigate the identified risk factors, and their effectiveness and associated risks are evaluated. Furthermore, the Industrial Health and Safety Committee regularly reviews and discusses health and safety-related inspection activities, their results, and the adequacy and effectiveness of related measures. In 2022, the Committee was convened each quarter to discuss such issues as the investigation of hazardous factors related to musculoskeletal disorders, the results of the 1784 working environment inspection, and counseling systems for mental health. The agenda, decisions, and results of the reviews conducted by the Industrial Health and Safety Committee are transparently disclosed to employees through official announcements.

From September to December 2022, NAVER conducted a study on harmful factors with the aim of preventing and managing musculoskeletal disorders among employees. The management and labor representatives of the Industrial Health and Safety Committee participated in the development of the study, and in collaboration with a university hospital, we conducted surveys and on-site inspections reflecting the characteristics of IT industry workers. For employees who required management, individualized measures were taken based on the results of medical consultations with specialists at the university hospital. Additionally, NAVER held an explanatory meeting in order to provide guidance on the survey results and improvement measures (introduction of an in-house hospital management program, support for the purchase of musculoskeletal disorder aids, use of musculoskeletal disorder prevention video contents, etc.) to all employees, in order to minimize musculoskeletal disorders and manage them effectively.

EMPLOYEE WELFARE AND WELL-BEING

NAVER strives to provide its employees with the best possible working environment and various welfare benefits to increase their satisfaction and enable them to demonstrate their abilities effectively. To help them to secure a healthy work-family life balance, NAVER has implemented various flexible work arrangements, including selective work hours and reduced work hours, while striving to maintain a pleasant working environment. In 2022, we introduced a system that allows unpaid leave of up to six months for employees who have worked for more than three years, thereby supporting employees' self-development and growth.

In addition, NAVER provides its employees with exercise facilities and professional medical consultations to take care of their physical and mental health. For employees working night-shifts, such as staff at the 24/7 situation room, the company conducts special annual health checkups in accordance with the Occupational Safety And Health Act. The checkups are conducted to find if he/she has such illnesses as coronary artery disease, diabetes, and hypertension, which typically affect employee's suitability for night work, and thus determines if he/she can continue working at night. Furthermore, we operate an in-house kitchen and café, providing employees with fresh food and diverse low-salt, low-calorie diet options every day.

NAVER also runs various family-friendly programs that take employees' families into account. We provide one additional year of parental leave beyond the legally required period and support annual family care leave for childcare. Moreover, we have set up the Mother's Lounge in our office building, equipped with breastfeeding machines. As of 2022, we are operating six top-tier daycare centers that can accommodate a total of 951 children in Seoul and Gyeonggi Province, including the one in Pangyo, which opened in June 2022, in conjunction with organizations specializing in workplace childcare facilities. Based on the number of employees whose parental leave has expired, the rate of employees returning to work after parental leave has exceeded 99% for five consecutive years since 2018.

WORKPLACE MENTAL HEALTH PROGRAM IN THE POST-COVID ERA

After going through the COVID-19 pandemic era where remote work became common and uncertainty was high, NAVER has supported employees to have a satisfying work life by providing them with emotional exchanges, a sense of belonging, and opportunities to refresh themselves. We run programs such as "Workation" which provides employees with opportunities to work in Chuncheon and Tokyo by utilizing the company's facilities, and "Team Play" which enhances emotional bonds among employees. The Workation program has received a great response from employees, with a maximum competition rate of about 50:1 and a satisfaction rate of 100%. The Teamplay program also shows a maximum application rate of 95% and a satisfaction rate of 98%, establishing itself as an opportunity for individuals to refresh and for organizations to enhance their teamwork.

In addition, the percentage of employees who have joined "Club Greeny", an in-house club, where employees can meet and interact with their colleagues from various teams beyond job groups, reaches 41%. We are operating systems such as the "Subsidy for Consecutive Personal Leaves" that provides allowance when employees use two or more days of annual leave consecutively. In addition, in 2022, as an in-house cultural content "Momentum" program, we invited professor Choi Jae-cheon, an ecologist, and Andersen Prize winner Lee Su-ji to give a lecture to employees. Through "Health Talk," we shared professional information on various health-related topics such as insomnia, stress, and eye health. In the future, we plan to continuously develop new programs to promote and refresh our employees' physical and mental health.

Building a Healthy Organizational Culture

Since 2021, NAVER has been taking an active part in the Work-Life Balance Campaign organized by the Ministry of Employment and Labor. To this end, we run various support programs to assist its employees in achieving a healthy balance between work and their personal life.

Support Programs to Assist Work-Family Balance

Classification		Details
Work hour	Connected Work	Employees can autonomously choose the work system that best suits them on a semi-annual basis among two ways of working – Type O for going to the office 3 times a week or Type R for remote work
	Selective work hours	Employees can freely work between 06:00-22:00 during weekdays without any designated core time and minimum daily work hours
	Reduced work hours	Employees can apply for reduced work hours for such reasons as pregnancy, baby care, and family care
Workspace	Workspace with fresh air	Wooden floor instead of carpets with the ceiling designed to minimize dust Ideal indoor humidity under continuous management
	Pleasant meeting rooms even after intense discussion	As meetings progress, meeting rooms tend to be heated. All meeting rooms are equipped with CO2 sensors to monitor and maintain the quality of air
	Ergonomic chairs for all employees	All employees are provided with heavy-duty chairs designed ergonomically as those who work long hours deserve the best chairs
Healthcare	NAVER Home Doctor offering professional medical services at the office building*	Professional counseling and treatment are provided for employees who feel unwell during work or are in need of consulting before and after medical checkups in addition to physiotherapy for musculoskeletal or stress-oriented diseases, medical examination, and vaccinations
	Psychology counselling support for mental health*	Partnership with a professional counselling center that allows employees to take care of their mental health with the support from professional counselors Full counseling cost support up to 10 times a year and an 80% cost support thereafter
	Medical/security consultation channel delivering professional services anywhere, anytime*	Professional medical consulting and emergency support services available in case of health/security issues anywhere in the world
Healthy food	Green café that cares employees' health*	Fresh coffee brewed by baristas, freshly-squeezed fruit juice, and oriental herbal drinks are available at a reasonable price Bakeries and chef-made burgers cooked at the canteen are available for to go for a quick meal
	B1 Kitchen for a healthy meal*	Nutritious meals that are intended to improve employees' fitness are provided every day such as delicious salads and low-sodium and low-calorie foods
Daycare center	6 daycare centers in Seoul and Gyeonggi areas*	6 top-tier daycare centers with capacity of providing cares to 951 children in Seoul and Gyeonggi areas
Family care	Accident insurance and medical examination services, top level in Korea*	Not only the employees themselves but their spouses, parents, parents-in-law, children, and siblings are covered by the accident insurance Employees can receive medical examination every year and one of family members every two years
	"Open Saturday" to bring family members to work*	An occasion when employee families are invited to the office and participate in fun programs, experience the company culture, and build good memories
	Green wedding*	Space and facility support for in-house weddings
	Holiday gifts*	A gift worth KRW 200,000 per employee twice a year for holidays

Classification		Details
Vacation support	15-day Refresh Plus leave after two years of service	A 15-day Refresh Plus leave after two years of service which can be used up to three times within three years thereafter
	Childcare service and special vacations*	Employees can use their family care leave for childcare and others up to 10 days a year
	Support for deluxe leisure facilities*	Employees can use luxurious leisure facilities around the country at an affordable price
	Subsidy for Consecutive Personal Leaves	Employees are paid KRW 50,000 won per day in vacation expenses when taking 2 or more consecutive days of annual leave
Financial support	Financial support for housing and livelihood	Cash support (up to 10 years) corresponding with interest costs (1.5%) both for loans up to KRW 200 million for housing (purchase or lease) and credit loans up to KRW 100 million
	Support for congratulations/ condolences for employees and their families*	Financial support provided by the company and colleagues to help employees concerned with the necessary ceremonies
	Payback for employee stock purchase	Support 10% of treasury share purchase of executives and full-time employees. If they hold the shares for at least 6 months, reward is given within the annual limit of KRW 2 million
	Stock grant	Grant of shares worth KRW 10 million won per year to each employee
Work engagement support	Budget for work devices	Employees are allowed to select devices according to their circumstances and needs to help improve their work efficiency.
	Support for individuals' work-related expenses*	Support work-related expenses including phone bills, book/content prices, parking fees
	NAVER service voucher*	Free monthly support to allow employees to experiment with and enhance their understanding of NAVER's various services
	Global language study program*	Various types of support for language education in line with the company's growing global presence (up to KRW 2.4 million per year)
Emotional exchange support	Workation	Accommodations and lodging are provided at the Chuncheon NAVER Connect One and Tokyo base camp via a monthly lottery, along with an environment in which to work for 5 days (per week).
	Team Play	Offering psychological diagnosis and various programs for teamwork at NAVER Connect One in Chuncheon
	Club Greeny	Employees can join and support various-theme club activities such as hobbies and volunteer activities

* For all employees (including executives, full-time, and part-time employees)

Building a Healthy Organizational Culture

CASE STORY

Employee Engagement Survey: Diagnosis of organizational effectiveness

NAVER has been conducting a comprehensive diagnosis of organizational effectiveness through employee engagement survey since 2021. The diagnosis covers a wide range of aspects related to working environment and workforce productivity, such as corporate culture and way of working. In 2022, we strengthened this diagnosis by enhancing the items related to cultural safety, such as trust in the grievance handling channels and company measures' for employees' reports, while reducing some items that have maintained high effectiveness and are redundant. We also conducted a diagnosis of overall effectiveness for 16 aspects, including cultural safety, voluntary engagement, creation level of execution environment, clear and definite direction, trust in leaders, respect and recognition, development opportunities, and compensation and benefits. A total of 3,597 out of 4,758 NAVER employees, with 76% of participation rate as of the survey date, participated.

The results showed a slight improvement (10% increase on average) overall compared to last year. Some of the areas with significant improvements are related to cultural safety, respect and recognition, diversity and inclusion, and grievance handling within the workplace. Accordingly, there was a significant increase in trust in the management and leaders, indicating that they carried their promise to prioritize these improvements. The results of the 2022 NAVER organizational effectiveness diagnosis are proven to be in outstanding status domestically, while being competent compared to the global benchmark level. However, some results also suggested that efforts to provide a clear and definite work-direction were not as effective, which could be attributable to the characteristics unique to IT industry and the fact that platform companies are operating in a rapidly changing business environment. Nevertheless, NAVER is making continuous efforts to provide more information and communication opportunities to increase employee engagement and job stability.

Indicators which increased the most in 2022

Cultural safety	Trust in leaders	Respect and recognition	Diversity and inclusion
67%(+36%p)	66% (+14%p)	70% (+19%p)	75% (+20%p)

Comparison of level of perception of key dimensions against benchmark level

(Unit: % of positive response[1], %p difference in positive response rate against benchmark level)

Positive compared to the Norm Negative compared to the Norm

Core Components	NAVER	Compared to 2021	Compared to domestic average	Compared to global benchmark	Compared to global SW/platform benchmark
Voluntary engagement	76%	(+8)	(+15)	(+10)	(+11)
Clear and definite direction	63%	(+4)	(-10)	(-11)	(-7)
Trust in leaders	66%	(+14)	--	--	--
Quality and customer-centered	81%	(+5)	(+5)	(+3)	(+3)
Respect and recognition	70%	(+19)	(+9)	(+6)	(-1)
Development opportunities	72%	(+4)	(+16)	(+12)	(+10)
Salary and welfare benefits	57%	(+4)	-	(+3)	0
Cultural safety	67%	(+36)	-	-	-
Creation of execution environment	71%	(+3)	(+9)	(+3)	(+2)
Performance management	63%	(+8)	(+2)	(-5)	(+1)
Authority and empowerment	66%	(+7)	-	-	-
Available resources	61%	(+3)	(+5)	(-3)	(-6)
Education/training	58%	(+9)	(+1)	(-4)	(-5)
Cooperation	71%	(+3)	(+8)	(+4)	(+1)
Task/Structure/Process	51%	(+9)	(+4)	(-3)	(-5)
Diversity and inclusion	75%	(+20)	-	-	-

* 3,597 respondents, 76% of total employees as of survey date

[1] The positive response rate refers to the percentage of employees who gave a score of 5 (strongly agree) or 4 (agree) on a 5-point scale. For some benchmarks, if there are many customizing items, comparison may not be possible (trust in the leaders, cultural safety, etc.).

Respecting Diversity in the Workplace

NAVER is striving to create its own unique flexible organizational culture where individuals from diverse backgrounds and values, including gender and nationality, can come together. We have taken the lead in building a working environment where employees respect each other and thus work independently based on their capabilities while also contributing to the society. Going forward, we will continue to conduct regular organizational diagnostics and institutional efforts to form an environment where all employees can work more comfortably and demonstrate their skills.

FEMALE EMPLOYEES

As of the end of 2022, male-to-female employee ratio at NAVER was 61:39[1], with a 2%p increase in the number of female employees compared to the previous year. The number of female managers (based on leader position) is also increasing every year, which has enabled us to maintain top 10% in female leadership ratio in the industry. As of the end of 2022, female leaders accounted for about 30% of all NAVER leaders, indicating a year-on-year increase of 3%p. The proportion of female executives among C-level top management, including the Company-in-Company (CIC) representative, is as high as 21%. NAVER does not discriminate against women through any invisible biases and aims to maintain a level of female leadership representation that exceeds the industry's domestic average[2] by more than 10%.

NAVER encourages the use of maternity and childcare leave to ensure that competent female talents have equal opportunities to demonstrate their abilities without being hindered by pregnancy and childbirth. More than half (over 56%) of NAVER's female leaders are balancing childcare and work, and 100% of employees, except voluntary resignations, have returned to work after taking maternity leave. In addition, there is no wage gap based on gender, except for inevitable differences due to job positions. Moreover, there are several clubs within the company for employees with children that enable them to share their concerns and exchange tips and information related to childcare. As a result of such efforts, the "Diversity and Inclusion" indicator in the 2022 employee engagement survey significantly improved, with a high positive response rate of 75%, a 20%p increase from the previous year. This indicator demonstrates employees' recognition of the company's supportive policies and actions for minorities, such as employees with disabilities or pregnant women, as well as their understanding of the culture of fairness, and processes that foster women's leadership.

1) Based on full-time employees
2) Based on the Korea Statistics employment statistics criteria; and correspond to the definition of "manager" by the Korea Standard Occupational Classification

EFFORTS TO PROMOTE DIVERSITY

NAVER runs a program for networking and organizational adaptation for foreign employees. We operate a "Global Lunch" system every month, providing an opportunity for foreign employees to have lunch together and network. We also encourage sharing of work and Korean life-related questions, tips, and experiences through NAVER Works chat room, the company's internal messenger.

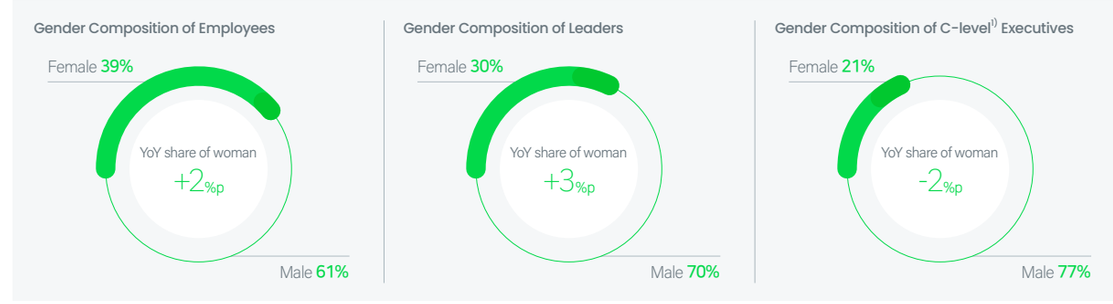
We are also committed to hiring people with disabilities. Our subsidiary "NAVER HANDS" is a social enterprise established in 2020, started with 21 employees and has increased its employment rate by approximately 250% by hiring additional 31 people with developmental disabilities by the end of December 2022. We continue to help people with disabilities develop work capability required for their job duties, and as of December 2022, a total of 52 people with developmental disabilities are working in six categories of jobs, including cafés, brand stores, coffee machine and bean management, plant management, flower shops, and convenience stores at NAVER headquarters (1784, Pangyo Tech One Tower, Dodam Building).

Employees with developmental disabilities working at NAVER HANDS are all full-time employees, and they are offered with job security and opportunities to be economically independent. To enable individuals with severe disabilities to perform their duties actively and independently, we have established a systematic work process that includes detailed work manuals for each job and education to help them enhance job capability.

In particular, we provide overall guidance and legal education on the company culture, manners, and facilities, etc. at the beginning of their employment to help employees adapt well to the workplace. We also support employees' efforts to adapt to their work by providing easy-to-understand educational materials within the work space or by distributing them. In addition, the subsidiary company, N-VISIONS, a standard workplace for persons with disabilities, organizes exhibitions, operates cafés and shops, and offers web accessibility consulting, and currently employs 28 visually impaired workers.

Our efforts to improve internal diversity were recognized at the 2023 Disability Employment Promotion Contest hosted by the Ministry of Employment and Labor in April 2023. NAVER HANDS won the award for excellent companies in the disability employment sector, while an employee from N-VISIONS received a commendation from the Prime Minister in the category of disabled workers. Going forward, we will make continuous efforts to develop a wider range of jobs through the disability employment system, including NAVER HANDS, to provide more employment opportunities for persons with severe developmental disabilities, and thus help them become contributing members of society.

In addition, NAVER strives to expand intergenerational communication and exchanges by holding "Let's Meet Now" every year, which is a series of function and seniority-based (leader, senior, junior) gatherings hosted by the HR Team. Many employees participated and shared diverse opinions.



* As of 2022 year-end

1) Including inside directors, GIO, CIC representatives, business representatives and executives

ESG COMMITMENT 3

Supporting mutual growth with the partners and local community

2022 KEY HIGHLIGHTS

Adoption of new system for supply chain ESG management

Supply chain risk management

First IT platform company in Korea to offer an online ESG self-assessment program (Nov. 2022)

ESG self-assessment for purchasing partners

Highest rating for 6 consecutive years in the Win-Win Growth Index Evaluation

Named Best Honorary Company in the Win-Win Index Evaluation for 6 consecutive years

Fountain Fund to support SMEs and creators

Fountain Fund worth KRW 98.8 billion

Maximizing the Value of Togetherness

NAVER's definition of partners is not limited to those within its supply chain. Two major types of partners coexist in NAVER's ecosystem: "purchasing partners" are those who supply resources, services, and products. "Platform partners" refer to sellers and content creators who create value through the platform or deliver value to users. The autonomy and diversity of participants are the key to NAVER's competitiveness, and these collaborators are directly linked to the core technologies, contents, and solutions, allowing the platform to grow and operate. NAVER thus actively supports its partners so that they can interact and generate positive values within the platform ecosystem of NAVER.

MANAGEMENT APPROACH

NAVER builds a platform ecosystem that provides a venue for cooperation and win-win with its various partners. We put particular focus on the dissemination of ESG management, the cornerstone of a sustainable ecosystem and fair market environment, among its purchasing partners who make up NAVER's supply chain while supporting their sustainable management in various ways. Furthermore, leveraging our cutting-edge technology and know-how, we help SMEs and startups embrace new opportunities, thereby enhancing the corporate value of our partners in NAVER platform. Going forward, we will continue to discover and support various types of partners to create a healthy platform where our partners can create optimal value.

OUR KEY PERFORMANCE INDICATORS (KPI)

Strengthening ESG management support for purchasing partners (suppliers)

- Maintain the highest rating in the Win-Win Growth Index Evaluation

Identifying, managing, and disclosing human rights risk by stakeholder

- Identify reflected human rights risks within the partners' ESG management system

Contributing to expanding experiences of underprivileged regions and groups

- Conduct online fundraising training for public interest organizations supporting the underprivileged nationwide, including local communities, four times a year
- Promote more local "Good Stores" and help local businesses expand their sales channels

Helping SMEs build competency

- Provide store branding and digital literacy education program, Local Brand School, for local SMEs in 4 jurisdictions
- Conduct the "SME Brand Launcher" for 30 brands to secure brand value and support continued growth of SMEs
- Set the goal to reach 800,000 members of NAVER Business School in 2023

Building Sustainable Supply Chain Ecosystem

Under the motto "the growth of our partners leads to our growth," NAVER strives to expand our win-win growth ecosystem with our partners based on reasonable and fair transactions. Most notably, we support the ESG management of our purchasing partners and develop win-win partnerships with them in order to achieve sustainable growth in the long-term.

SUPPORT FOR PURCHASING PARTNERS FOR WIN-WIN GROWTH

NAVER Growing Together with Purchasing partners

NAVER is continuing its efforts for win-win growth with the goal of long-term value with its purchasing partners. We focus on providing purchasing partner more distinctive support programs in the areas of management, education, welfare, and market support, with an emphasis on improving the self-sufficiency of small IT companies, our major purchasing partners, and strengthening welfare benefits for the employees of our partners. We provide support in three aspects: management, education, and welfare to help relatively small purchasing partners within the NAVER supply chain to improve sustainability.

To offer management support, we provided consulting to 10 purchasing partners in 2022, and formed a win-win growth fund worth KRW 17.2 billion and provided loans at an interest rate lower than the market rate. We also provide ESG self-assessment services free of charge to small and medium-sized purchasing partners who find it difficult to practice ESG management on their own. We offer purchasing partners who have participated in the self-assessment with a report reflecting experts' feedback while offering an ESG checklist for the four major industries (service, information and communication, manufacturing, and construction) to all fair-trade partners to raise overall awareness of ESG management for our partners. We also help our small and medium-sized purchasing partners pave their way into overseas markets. In 2022, we contributed to the achievement of overseas sales of KRW 23.7 billion of 38 small and medium-sized purchasing partners. In terms of training support, we provide online and offline training courses to employees of our purchasing partners. Furthermore, we run health check-up programs and support funeral supplies to help improve the welfare of our purchasing partners' employees and their families.

Win-win Growth Activities with Purchasing Partners

Management support

- 100% cash payment within 10 business days from the date of issuance of the invoice (as of 2022, 7.2 days including holidays)
- Payment of transportation expenses and a participation fee for bidding participants
- Free online consulting on such issues as labor, laws, and tax
- Forming a win-win growth fund worth of KRW 17.2 billion and providing loans at a lower interest rate (as of December 2022, KRW 15.7 billion provided to 47 companies)
- Providing professional management consulting service, including ESG innovation, to help partners with a fair trade agreement achieve productivity innovation (partners selected once a year; 10 partners selected for support in 2022)
- Providing free online ESG self-assessment service and assessment result reports for small and medium-sized fair trade partners who have difficulties practicing ESG management (on a constant basis; 8 partners participated as of December 2022)
- Helping partners expand overseas sales channels by introducing domestic purchasing partners for overseas services and supporting direct contracts with overseas subsidiaries
- Participating in consultations to support small and medium-sized purchasing partners in developing their domestic markets, and signed SME online support agreements with local governments and public institutions
- Participating in the private-government joint technology development program organized by the Ministry of SMEs and Startups (support for business expenses related to technology development of small and medium-sized partners)
- Supporting guarantee insurance fees for partners with a fair trade agreement
- Supporting technology escrow fees for partners with a fair trade agreement
- Supporting the operation of an online-only recruitment center and participation in various job fairs to support recruitment of purchasing partners.
- Offering a non-face-to-face collaboration solution at a discount compared to the market price to support the establishment of a home/remote work environment for purchasing partners

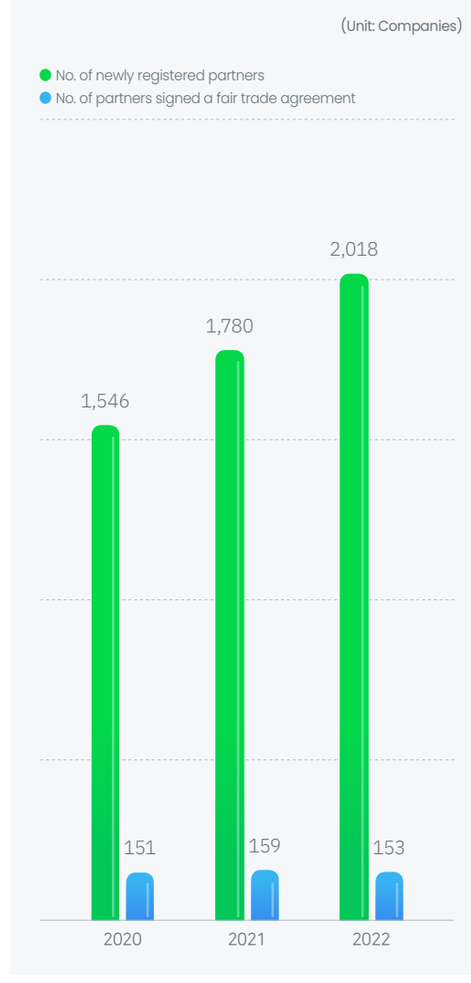
Education support

- Providing regular online training courses (including legally imperative trainings) to employees of purchasing partners (60 companies in 2022, cumulative number of trainees: 12,399[1])
- Providing education programs on the digital platform business management through NAVER Business School for SME partners (a total of 161 courses in 2022; cumulative number of trainees: 517,239[1])

Welfare support

- Supporting welfare programs (health checkup, calendar set, etc.) at the same prices offered to NAVER employees
- Providing articles for funerals
- Supporting meals for the employees of partners (including all purchasing partners) residing at the company's workplace

Status of NAVER's Purchasing Partners



[1] Including double-counting

Building Sustainable Supply Chain Ecosystem

NAVER's arduous win-win efforts for supporting its partners are recognized externally as well. In the Win-win Growth Index evaluation conducted by the Korean Commission for Corporate Partnership in 2022, NAVER received the highest grade for its operation of various support programs for the business stability of its purchasing partners, its technology and policy support for SMEs' digital transformation through D-Commerce programs, etc., and its efforts for social stability based on technology in crisis situations such as COVID-19. In addition, NAVER's win-win cooperation activities were selected as best practices for the implementation of the Fair Trade Agreement and publicized through the 2022 Fair Trade Agreement Best Practices hosted by the Korea Fair Trade Commission and the Korea Fair Trade Mediation Agency. NAVER will continue to do its best to develop a positive win-win culture in which various partners and SMEs can grow together.

CASE STORY

BEST PRACTICE FOR WIN-WIN GROWTH INDEX WITH PARTNERS

Ranked the highest in the Win-Win Growth Index Evaluation for six consecutive years

NAVER became the first internet platform company in Korea to earn the highest grade in the Win-Win Growth Index Evaluation for six consecutive years since 2016, setting a new milestone in win-win cooperation. Most notably, the Korea Fair Trade Commission cited NAVER as an exemplary case of win-win growth in 2022 for its D-Commerce program aimed at helping SMEs hit by national disasters such as COVID-19 and relatively lacking in technology and resources, to enter the digital commerce market and grow their business. Through the D-Commerce program, NAVER provided diversified SME growth supports such as free online business training and consulting as well as financial support through Start Zero Fee and growth points. The Korea Fair Trade Commission positively evaluated that NAVER's efforts for win-win eased barriers to SME's entry into the digital commerce market and that SMEs were able to expand their business more easily with faster settlement and return cost support.

NAVER Business School | NAVER D-Commerce Program

Fair Trade Agreement Best Practices Presentation

NAVER Business School

NAVER Business School is an online education service that provides support for SMEs' and creators' digital transformation and growth. Not only NAVER's purchasing partners but also platform partners and others can access a variety of educational coursework. NAVER Business School provides course credits for some courses, which can later be converted into business money for NAVER advertising or marketing points for Smart Store.

NAVER Business School has also been providing ESG education courses on ESG integration with business and the use of eco-friendly packaging materials since September 2022 for small business owners unfamiliar with ESG. A total of 6,245 Smart Store partners participated in this training for six months after its launch.

NAVER D-Commerce Program

D-Commerce Program operates various support systems for small business owners doing their business at NAVER platform. The program is at helping the business owners achieve sustainable growth, which has also enabled us to track and expand socioeconomic value. The analysis results are communicated through the annual D-Commerce Report and D-Place Report.

Building Sustainable Supply Chain Ecosystem

SUPPLY CHAIN ESG RISK MANAGEMENT

Improving Fair Trade and Sustainability of Purchasing partners

NAVER's purchasing partners are one of the most important stakeholders for its healthy business operations. Therefore, NAVER does its best to trade fairly and grow with all its purchasing partners, including small IT companies. In order to solidify our commitment to fair trade and win-win cooperation, we select major purchasing partners every year, sign fair trade agreements with them, and spare no effort for win-win cooperation with them through education and support.

To practice reasonable and fair transactions with its purchasing partners, NAVER utilizes an electronic purchasing system for the entire process of all transactions. In addition, by introducing and complying with the "Code of Conducts to Comply with Subcontract-related Laws and Regulations" enacted by the Korea Fair Trade Commission, we strive to prevent any acts of corruption that could arise with our business partners.

We also make in-house notices to all employees semiannually, while providing trainings for departments dealing with purchasing partners. Furthermore, we continue to make improvements by operating channels to listen to our purchasing partners' opinions and to enable them to report any concerns.

3,610 surveys have been conducted as of 2022 on NAVER's purchasing partners through the VoP system, of which 1,674 responses were received Among the responses,16 cases (approximately 1%) were identified as complaints; 7 of them were found to have no issues and 9 cases were acted upon. Survey progress and results through the VoP system were reported to the Audit Committee.

In addition to our agreement on practicing business ethics, which stipulates the code of ethical practice for transparent and fair transactions with purchasing partners, we specify and promise to take action for sustainability by adding the Sustainability Management Practice Agreement as an annex to the purchase contract to enhance the sustainability of our purchasing partners. Given that NAVER has many small-scale, one-time or temporary partners due to the nature of its business, as a first step, we plan to clarify our main principles about human rights, safety, environment, and ethics upon executing contracts with them, while expanding our joint efforts to share sustainability values with our partners. Going forward, we will build a more advanced system for our purchasing partners with long-term and continuous relationships through the introduction of self-checklists, regular risk assessments, and incentives for purchasing partners with outstanding ESG management.

To this end, in 2023, we plan to expand the scope of the system by selecting purchasing partners who will play a key role in building a sustainable supply chain and identifying effective incentives to encourage ESG management participation across our purchasing partners.

Efforts to Establish the Fair Trade Order

Classification	Details
Operation of an electronic purchasing system	• NAVER selects its business partners through a bidding process in order to prevent verbal orders/unfair contract cancellations, and operates an electronic purchasing system for the entire process ranging from bidding to signing contracts and making payments with the goal of ensuring transparency and fairness.
Compliance with the 4 Code of Conducts	• NAVER has adopted and complies with the "4 Code of Conduct to Comply with Subcontract-related Laws and Regulations" enacted by the Korea Fair Trade Commission in order to establish reasonable and fair subcontract transaction practices (signing of contracts, selection and management of purchasing partners, internal deliberation committee, issuance of documents and their preservation).
Operation of channels to listen to purchasing partners' opinions	• NAVER operates the Voice of Partners (VoP) system through which it conducts surveys among partners and bidders to listen to their opinions. • NAVER operates partner programs and the Partners Line, which is a channel for requesting/suggesting win-win cooperation. • NAVER operates a dispute mediation channel through which our partners can apply to resolve a problem related to a purchasing contract. • NAVER operates the Corporate Ethics Consultation Center, a window for reporting violations of corporate ethics, such as employee misconduct and unreasonable demands

NAVER Win-win Growth Site

Building Sustainable Supply Chain Ecosystem

Supply Chain ESG Risk Management System

For more active supply chain ESG management and improvement, NAVER established the Supply Chain ESG Risk Management Policy and upgraded its management system in 2022. First, we urge our purchasing partners to participate in ESG management and present a code of conduct when signing contracts with them by signing the Sustainable Management Practice Agreement. We then expanded the scope of supply chain ESG risk management by additionally applying elements required to check ESG risks throughout the transaction process, including selecting purchasing partners and the phases before and after signing contracts with them.

STEP 1. Selecting Purchasing Partners

ESG Assessment Checklist for Potential Purchasing Partners

Following the pilot period, starting in 2023, we identify the ESG risks of potential purchasing partners at the selection stage. Accordingly, for companies wishing to start new transactions, we conduct an inspection through the Partner Agreement Transaction Hub (PATH) in accordance with the "ESG Assessment Checklist for Potential Purchasing Partners" based on ESG-related regulations, the Integrity Code, and the Sustainability Management Practice Agreement. Partners who have been confirmed to have outstanding ESG management performance through the ESG diagnosis checklist are given priority when selecting partners for the following year. Other incentives such as priority in consideration are also given during competitive bidding.

STEP 2. Signing the Contract

Signing the Sustainable Management Practice Agreement

When signing contract, both NAVER and its purchasing partners sign the Sustainability Management Practice Agreement (SMPA), pledging to participate in the ESG practice required of NAVER's supply chain. The SMPA is required for all types of contracts, new or renewed.

STEP 3. After Signing the Contract

NAVER Green Partner

NAVER strives to prevent ESG risks that may arise from its supply chain in advance while supporting its purchasing partners to develop the ability to address ESG issues. As part of this effort, in December 2022, NAVER established the "NAVER Green Partner" selection criteria based on annual transaction volume and transaction frequency. "Green Partners" refer to major purchasing partners that play an important role in operating NAVER's business. In turn, these partners' cooperation is essential to building a sustainable supply chain at NAVER. We share our supply chain ESG risk assessment schedule with Green Partners in advance, while regularly assessing their ESG risks with the NAVER Green Partner ESG Risk Assessment, developed in-house based on domestic and international supply chain ESG management standards and NAVER's Integrity Code. Moving forward, NAVER will select its green partners every year and evaluate their ESG risks on a regular basis to inspect and improve the ESG risks of NAVER's supply chain.

Regular ESG Risk Assessment

NAVER regularly conducts ESG risk assessments for Green Partners to assess risks in four areas – human rights, safety, environment, ethics – specified in its sustainability management practice agreement and takes actions to improve identified risks. If significant risks are identified, we discuss risk mitigation measures with our green partners through dialogue, visits, and due diligence at the relevant business site while continuously checking their improvement status. On the other hand, if a partner company effectively manages its ESG risks and brings forth a positive impact on the overall supply chain, we provide incentives to the partner at the contract renewal review process.

Following a pilot operation period in 2023, we plan to upgrade our management system continuously so that we can expand the target area from green partner-centered ESG risk management to ESG risk management for all our purchasing partners.

NAVER Supply Chain ESG Risk Management System

Request for Proposal/Quote → Order/Contract → Procurement/Delivery → Renewal Review

	STEP 1. Upon selecting a purchasing partner	STEP 2. Upon signing the contract	STEP 3. Upon transaction/delivery
Target	• Potential purchasing partners wishing to register new transactions	• Those subject to existing/new transaction contract execution	• Those selected as NAVER Green Partners[1)] - Based on annual transaction amount + number of transactions
Purpose	• Review of ESG-related compliance before contract execution • Confirmation of ESG risk level within the selection criteria	• Agreement on the ESG practice direction of purchasing partners following the contract execution	• Inspection of the current status of NAVER's major purchasing partners with a high need for management from an ESG perspective and the capacity to exert positive impact on the NAVER supply chain
Tool	• ESG assessment checklist for potential purchasing partners	• Sustainable management practice agreement	• ESG risk assessment for NAVER Green Partners
Methodology	• Conducting ESG self-assessment when registering with the PATH system	• Adding the agreement to the contract upon the contract execution	• Risk inspection after selecting a green partner every year • Conduct of due diligence when material issues are identified

[1)] Green Partner: Key purchasing partner which plays an important role in seamless implementation and operation of NAVER's business and collaborates closely to build sustainable supply chain

ESG Assessment Checklist for Potential Purchasing partners

Human Rights Management
- Prohibition of forced labor and child labor
- Humane treatment
- Guarantee of working conditions
- Human rights due diligence of products and services

Safety Management
- Industrial safety
- Safety and health education

Environmental Management
- GHG reduction
- Facilitating a circular economy

Ethical Management
- Operational transparency
- Protection of personal information

Selection of Green Partners

1. Notification of the selection and an ESG risk assessment schedule
2. ESG risk assessment for NAVER's Green Partners
3. Improvement activities based on assessment results

Helping SMEs Build Capacity

NAVER hopes that its platform partners such as SMEs and creators in the NAVER platform will gain more opportunities for growth through NAVER's technologies and services. Furthermore, we constantly seek for new ways so that their growth can lead to the creation of sustainable social value.

NAVER PROJECT FLOWER

Celebrating its 7th year in 2022, "Project Flower" is an important asset of NAVER aimed at fulfilling the societal expectations for the largest ICT company's social responsibility. It also has been the direction for the company to foster the value of diversity through NAVER's technologies, services, and platforms. In 2022, Project Flower set a stage for new evolution for the survival and growth of SMEs and creators who faced challenging situations again due to rapid changes such as the sudden transition into an endemic and rapid growth of the digital ecosystem over the previous three years of pandemic.

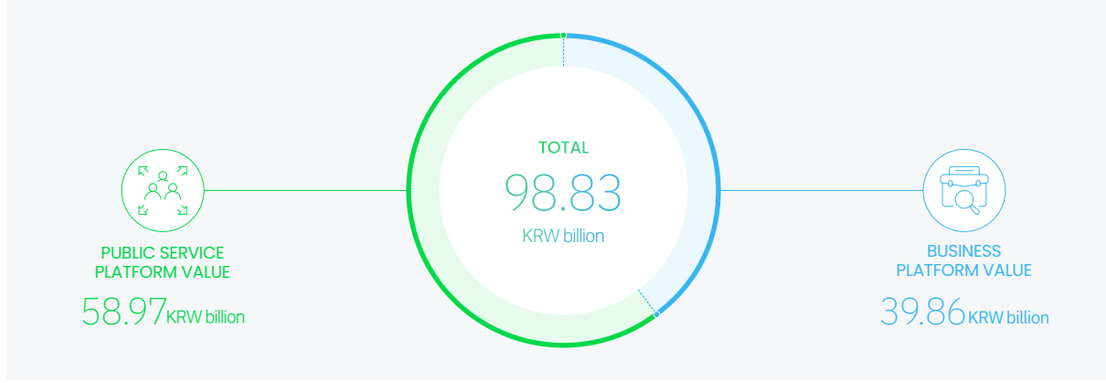
Through an in-house event called "NAVER Asks, NAVER Answers," the CEO and employees of NAVER perceived the evaluation and expectations on Project Flower from external experts and established a dedicated organization "Project Flower Secretariat" for the innovation of Project Flower. The Project Flower Secretariat works to strengthen the alignment of Project Flower programs that have been carried out either company-wide or individually. With the participating employees' empowerment and pride, the project has grown in significance and has solidified the direction of the New Project Flower.

In addition, it plans to implement exploratory programs that help SMEs grow into competent brands beyond simple sales expansion by scaling up existing programs with a particular focus on "digital on-boarding," while making new attempts to support the digital transformation and growth of unique local brands.

The constant growth in NAVER's "Fountain Fund" demonstrates its sincere efforts to find ways for NAVER, SMEs, and creators to grow together. The Fountain Fund is an original concept devised by NAVER to index not only simple donations but also the social impact it creates through technology, service, and business. Launched in 2017, the Fund consists of a "public service platform" which focuses on donations, and a "business platform" which is a social contribution domain through NAVER Business. Despite challenges such as slowing growth of technology companies from early 2021, changes in the global supply chain, and global inflation, NAVER has maintained the size of its Fountain Fund. It has continued to provide effective support for SMEs to maintain and grow their businesses, including support for "Quick Settlement" that dramatically helps SMEs' cash flow, "Safe Return Care" that reduces the burden of returns, and advancement of logistics services such as the NFA (NAVER Fulfillment Alliance). "Quick Settlement" that proceeds settlement within three days of placing an order amid a high-interest rate environment, has resulted in providing liquidity of about KRW 17.3 trillion within two years of service launch as of the end of 2022.

Almost all economic entities, regardless of size, faced difficulties in 2022, due to the faster-than-expected endemic transition and various macro changes. It was also a time when SMEs, which account for a considerable share of employment in the Korean economy, were busy looking for opportunities to grow in the midst of rapid changes. In response, the NAVER Project Flower intends to evolve in line with the trend to help approximately 550,000 NAVER Smart Store sellers, 10 million content creators, and 24 million NAVER Pay users experience new beginnings and growth on the NAVER platform and advance into larger markets. We will constantly strive to grow with everyone in the NAVER platform ecosystem to build a sustainable ecosystem with a thriving small brand with their own personality and uniqueness.

Size of the Foundation Fund



* As of 2022 year-end

The 1st "NAVER Asks, NAVER Answers" event: Talking about Project Flower (from left) CEO Choi Soo-yeon of NAVER, professor Kim Do-hyeon of Kookmin University, and professor Mo Jong-rin of Yonsei University

Helping SMEs Build Capacity

Key Milestones of Project Flower

2016

- Launch of Project Flower

2017

- AiTEMS
  - AI product recommendation service
- Toon Raider
  - Illegal Webtoon monitoring system
- Creator Studio

2018

- Biz Advisor
  - Free statistical tool for SMEs
- Shopping Chatbot
  - Auto-reply chatbot
- AiRSPACE
  - AI venue recommendation service
- Establishment of D-Commerce program
  - Customized on/offline education (currently NAVER Business School)
  - Studio support through NAVER Square
  - Funding program (Currently Start All-in-One Program)
  - Expert consulting, etc.
- Publishing D-Commerce Report

2019

- NAVER Local Marketplace Grocery Delivery
- NAVER Smart Order
- NAVER Reservation/Store Payment
- Launch of the NAVER Smart Place and NAVER Reservation integrated app
- Receipt Review
- Knowledge iN Expert

2020

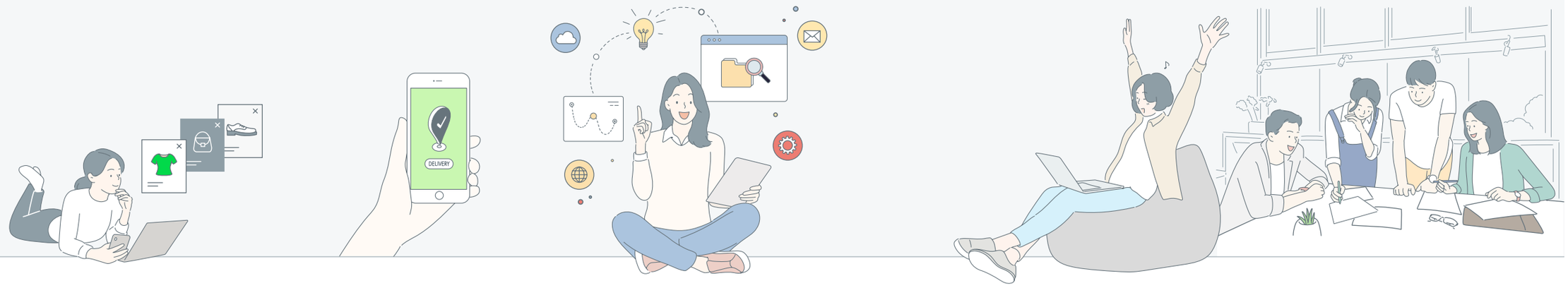
- NAVER Shopping Live
  - Live commerce tool
- Quick Settlement
  - Fastest settlement in the world
- Smart Store Business Loan
  - Based on an alternative credit scoring system
- Creator Advisor
  - A free statistics tool for creators
- ZEPETO Studio
  - A metaverse creator studio
- NAVER Financial Support Center
- 10th anniversary of ON STAGE
- CLOVA CareCall
- CLOVA Note
- CLOVA Dubbing

2021

- NAVER Fulfillment Alliance (NFA)
- Keyword Review
- Subscription
- Premium Content
- Webtoon AI Painter
  - AI coloring tool to assist creators
- SME Full Care System
- D-Place Report
- TechFin Report

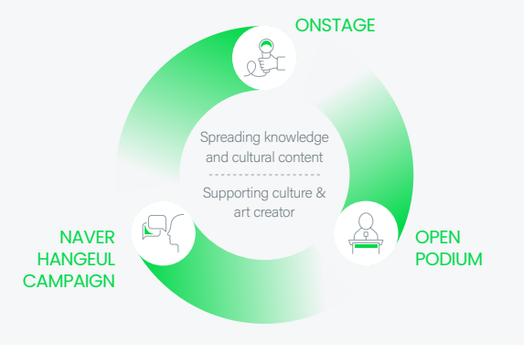
2022

- Launch of Commerce Solution Market
  - CLOVA Message Marketing, CLOVA Live Chat, etc.
- Launch of Safe Return Care
  - Free one-year support for SMEs
- Smart Place Business Loan
  - Based on an alternative credit scoring system
- Xpider
  - A Webtoon harmful content blocking tool



Growing Together with Local Community

NAVER discovers hidden cultures and connects them to new ones. To help individuals grow, we make connection between education and life. We turn one click to a positive change. NAVER defines the three pillars of its social contribution policy as sharing of knowledge and cultural contents with local community, support for digital literacy of the underprivileged, and offering of donation and funding platforms. We communicate with the wider world through the value of connection and grow together with the local community.



SHARING KNOWLEDGE AND CULTURAL CONTENTS

NAVER Culture Foundation

Established in 2010, the NAVER Culture Foundation is a non-profit, public service organization whose main purpose is to support the creators of cultural and artistic contents as well as to disseminate knowledge and cultural content. It contributes to the expansion of user cultural experience and diversity through high-quality digital archiving of valuable cultural and artistic contents. It also strives to create an on/offline cultural space where many users in Korea can rediscover and communicate with various cultural contents by supporting the activities of young creators. To this end, NAVER Cultural Foundation runs "ON STAGE," Korea's unrivaled underground music channel and K-Music support project; a culture and science lecture project called "Open Town Hall Meeting" that brings together leading scholars and the public; and the "NAVER Hangul Campaign" which aims to promote the universal value and significance of Hangeul, the Korean alphabet.

NAVER Culture Foundation

ON STAGE

Launched in 2010, "ON STAGE" is a K-Music support project. It is a unique underground music channel in Korea that introduces hidden music and musicians. It discovers indie musicians, supports their creative activities, and contributes to expanding the base of Korea's indie music ecosystem.

Since 2010, it has been introducing a high-quality live video of one talented team every week to a wider public. In 2022, it launched "ON STAGE Local" and "ON STAGE Onetake Concert (OOC)" for win-win with local communities and mid-level musicians. A total of 76 teams produced 220 live videos which have recorded more than 39 million video views, with 7,300 concertgoers enjoying their performances online and offline. As such, it supports musicians in a variety of ways.

"ON STAGE Local" is a local indie-scene support project for those actively performing music in local communities. This project allows individuals to learn about local musicians, live clubs, and indie performances in each region.

Currently, about 60 performance information is updated every month, along with information on a total of some 200 teams of musician in the four regions of Busan, Daegu, Gwangju, and Incheon. The project has introduced talented musicians beyond the borders of the region through on-site tours as well as live online broadcasts. In addition, we have produced live videos of musicians performing and released them on the ON STAGE channel, recording a maximum of 30,000 views, further enhancing the authenticity and social meaning of ON STAGE pursuing win-win with the local community.

"ON STAGE Onetake Concert (OOC)" is a project aimed at supporting mid-career musicians who have established their own music world, yet unnoticed by the public. The planning committee selects musicians among those who have been active in the indie scene for over 10 years. Then we support them in creating a new form of live video to draw popular attention and performing at a mini concert without an audience for 30 minutes on stage outside the studio. Such opportunities shed a light on the opportunities, musicians' talent that has been accumulated over time.

"2022 Christmas", planned collaboratively with NAVER, was a project that supported the release of famous carol remakes and live video production, and returned the proceeds to the musicians. Since its opening, the number of ON STAGE video views exceeded 200,000, with all songs charted in the VIBE Top 100 and recorded on the top of NOW, making significant achievements across all channels. "Paid Online Performance" was planned by musicians themselves and carried out in conjunction with ON STAGE. With an advanced composition compared to 2021, such as solo performances, LP bundle ticket sales, live recording relay broadcast, high-quality stage production, and musician chat participation, both musicians and users showed satisfaction with the sales increases and positive responses. All proceeds generated through "2022 Christmas" and "Paid Online Performance" were given to musicians to help them in their creative activities. The program was all the more meaningful in that it provided practical help to non-mainstream musicians.

CASE STORY

Payment system optimized for rights holders in the AI era

VIBE, the music streaming service by NAVER, introduced a groundbreaking revenue distribution model called "Pay for Play" in 2020, becoming the first global music service to do so. Traditional revenue distribution models in music services were based solely on the number of plays, which led to distortions in financial settlements and vulnerabilities. However, the "Pay for Play" model ensures that the revenue generated by users streaming music is directly distributed to the rights holders of the respective songs they listen to. By implementing this model, VIBE has significantly improved the issue of financial distortions, contributing to the creation of a sustainable creative environment for indie musicians and various artists, as well as the overall development of the music industry.

In particular, the Pay for Play model, which utilizes AI technology to effectively address financial distortions, is expected to be officially recognized and regulated by the Ministry of Culture, Sports and Tourism in 2023. The Recording Industry Association of Korea, the Federation of Korean Music Performers, and The Korean Society of Composers, Authors and Publishers have submitted a proposed amendment to the regulations on music usage fees, aiming to institutionalize NAVER's Pay for Play model. Through this recognition, NAVER's pioneering Pay for Play model will be utilized as the official revenue settlement method acknowledged by the government. It is expected to provide an optimized revenue sharing model for various rights holders and businesses, contributing to the development of the music industry.

#Pay for Play VIBE

No. of Participating Distributors

360

No. of Participating Distributors 360
(90% of the total, 11% up from the previous year)

Growing Together with Local Community

Open Town Hall Meeting

"Open Town Hall Meeting" is a culture and science lecture project that brings together the intellectuals of the Korean society. For nine years since 2014, it has provided a forum for intellectual discourse by extensively examining various life issues pertaining to our society. Led by scholars who represent Korea's intellectual elite, the meeting raises cultural issues facing Korean society with various lecture topics, ranging from classics to paradigms, ethics, modernity, life wisdom, cultural canons, traditional cultural classics and liberal arts books.

In 2022, the meeting examined the meaning of "freedom" in various fields such as politics, economics, history, science, journalism, literature under the theme of "freedom and reason". The meeting broadened the horizon of understanding of freedom and sought a vision for a democratic society of the future by examining various discourses and practices on "freedom" from the classical era through modern times to the present. Most notably, the Open Town Hall Meeting creates an open public forum, which had been lacking in the past, and produces important and meaningful knowledge discourses in our society. We provide full lecture transcripts, lecture videos, and audio clips for free so that anyone can easily access high-quality lectures by great scholars. As of 2022, lectures and discussions by 830 scholars, along with 420 scholarly essays, are archived. With a cumulative number of video views of 5.23 million, it is contributing to spreading in-depth knowledge discourse across generations as a humanities archive.

NAVER Hangeul Campaign

Launched in 2008, "NAVER Hangeul Campaign" is a public interest campaign to promote the value and importance of Hangeul. It conducts various Hangeul publicity activities every year, including the free distribution of Nanum font and MaruBuri font. In 2022, we carried out a Hangeul campaign to promote King Sejong the Great's initial intention and the history of Hangeul. The campaign raised questions about why Hangeul is valuable and meaningful, what efforts have been made to preserve it, and how much is known about the history of Hangeul. With the purpose of preserving Hangeul, we produced 18 videos containing intriguing moments in the history of Hangeul from its creation to its current status, in the voice of an expert, after receiving advice from the National Hangeul Museum.

Moreover, in the hope that children, teenagers, and the Millennials and Gen Z naturally learn the history of Hangeul through play, we also introduced the "Bluemarble Hunminjeongeum" game, which implemented online Hangeul history content offline. The game is designed so that the person who safeguards Hangeul the best will win in a world view that all participants cooperate and protect Hunminjeongeum together. The value and history of Hangeul are incorporated into the game rules, such as prohibiting the use of foreign and slang words, and most notably, this game aims for all participants to know Hangeul correctly and cherish it together based on cooperation and collaboration, not competition. All proceeds from the sale of the limited edition "Bluemarble Hunminjeongeum" are used to support individuals that lack the knowledge. In 2022, NAVER donated a total of KRW 90 million, including the company's subsidy.

ON STAGE

Open Town Hall Meeting

NAVER Hangul Campaign

DIGITAL LITERACY

NAVER Connect Foundation

Established in 2011, the NAVER Connect Foundation is a non-profit foundation whose main purpose is to execute NAVER's public-interest professional education program transparently. It aims to lead educational innovation by providing new educational models and platforms which enable everyone to have the best education opportunity. It offers software education to students of all levels, ranging from elementary, middle, and high school students to computer software majors, and nurtures talents required by business, thereby helping individuals with their continued development through lifelong education.

As AI technology has rapidly become a part of our everyday life, the importance of digital utilization skills using AI and data has increased. In Korea, as software education has been mandatory since 2019, NAVER strives to contribute to the improvement of digital capabilities of future generations. Most notably, all elementary schools in Korea are conducting software education through NAVER's online education platform "Entry". Considering the average number of monthly users of Entry reaches one million, NAVER promotes Entry's stable service operation and advancement of its mobile functions with a sense of responsibility and mission while making various efforts to differentiate our services and provide high-quality contents.

NAVER Cultural Foundation

Main Projects of the NAVER Cultural Foundation

Purpose	Project Name	Description	Details and Metrics
Support for musical diversity and musicians' creative activities	ON STAGE (2010)	• Archiving musicians and music with high-quality live videos • Public confidence through expert selection and popularity as a sacred place for indie music • Diverse programs including Onetake concert, paid online performance, "2022 Christmas" carol project	• Cumulative number of supported musicians: about 1,150 • Cumulative number of video productions: about 2,900 • Cumulative number of concertgoers: 123,000 (Total of online and offline) • Performance and music revenue in 2022: about KRW 25 million (returned to musicians)
Lectures on culture and science by scholars to support the humanities ecosystem	Open Town Hall Meeting (2014)	• A culture and science lecture project in which the intellectual capacities of Korean society are gathered together by distinguished scholars serving as speakers • A service that allows anyone to view humanities content such as lectures, discussions, highlights, and full lecture transcripts for free	• Number of lecture participants and panelists: 830 • Cumulative content creations: about 3,100 • Average number of monthly users: 240,000 • Cumulative page views: 56.8 million • Cumulative number of video views: 5.23 million
A public service campaign with sincerity in Hangeul	NAVER Hangul Campaign (2008)	• A public service campaign featuring King Sejong the Great's initial intention to create Hangeul and the history of Hangeul (2022)	• 2022 campaign performance - Number of visitors: 1.17 million (Sept.-Dec.) - Shopping Live viewers: 130,000 (60 minutes on October 4) - Support for the underprivileged: KRW 90 million donated for 875 beneficiaries

* As of 2022 year-end

Growing Together with Local Community

Education for Future Generation

Since 2014, even before software education became mandatory in Korea, the NAVER Connect Foundation has been running the "Let's Play Software" campaign to raise awareness on and spread software education. Season 1 of the campaign focused on educating students, nurturing instructors, and developing teaching materials, while contributing to expanding popular knowledge of and the foundation of elementary/secondary software education. In the second half of 2019, we launched Season 2 with the aim of strengthening the future AI and data capabilities of elementary and middle school students, enhancing our AI technology and promoting the use of data. Since 2020, as part of our efforts to empower everyone to understand AI technology and increase their AI and data utilization capabilities, we have provided textbook guides and worksheets for teachers and parents to understand the concepts of AI and data along with their children. Furthermore, since 2021, we have conducted college student mentoring programs regarding software. Moving forward, we plan to expand not only our own educational programs but also collaboration with institutions/local governments to spread our online and offline software education tailored to the local community.

In 2021, the Junior NAVER business was transferred from NAVER to the NAVER Connect Foundation to provide safer and more useful content for infants and toddlers. In September 2021, we launched the play-learning app "Junior NAVER School" so that children, to whom AI and software would soon become part of their daily life, can learn digital technology happily through play. Designed to help children aged 4 to 7 improve their basic math skills and logical thinking skills, Junior NAVER School offers more than 600 educational contents. In 2022, it conducted a pilot education targeting vulnerable and marginalized groups, and starting in 2023, it will expand the program in order to bridge the education gap for future generations.

Adult SW Education

The NAVER Connect Foundation also operates various intensive programs on core technologies and advanced IT knowledge for adults. It aims at providing consumer-oriented education that can equip trainees with practical capabilities for AI and data science. The NAVER Connect Foundation utilizes NAVER's advanced technology and infrastructure so that anyone can acquire knowledge for the future and the latest technology without time and financial barriers.

Major Programs of NAVER Connect Foundation

Target	Program	Description	Cumulative number of beneficiaries
Thinking skills education for young children	Junior NAVER	• Enables users to learn and experience the basic knowledge needed to understand AI and software • Provides contents and interactive problem-solving sessions customized to children at their age • Provides safe and beneficial contents to infants and toddlers	• Average monthly users of Junior NAVER School web mobile: 630,000 • Number of downloads of the Junior NAVER School app: 160,000
Software education for elementary, middle, high school students, and teachers	Let's Play Software	• Provides diverse education for easy learning of the basic concepts of AI and data • Provides videos with different levels of difficulty, and teaching materials and content on diverse subjects so that anyone can easily and conveniently learn and teach software	Season 1 (2014-First half of 2018) • Provided education to 18,000 students (regional camp, in partnership with college students volunteer groups) • Nurtured 2,600 instructors (teachers, undergraduate volunteer groups consisting of future teachers, general instructors (women looking to reenter the workforce)) • Developed 25 textbooks and teaching materials Season 2 (Second half of 2019 and onwards) • Produced content and established a platform to build an AI & data education environment • Strived to establish an environment that enables online AI & data learning due to COVID-19 1. Provided 10 of Hello AI World, which is a learning video that helps learners understand the basic concepts of AI technology and data 2. Provided AI & data training programs for teachers 3. Provided AI & data learning materials for parents and teachers 4. Provided open course ware for online AI & data education of students • Number of AI & Data beneficiary teachers from the software education platform Entry: 24,200 • Number of beneficiary students: 16,400
	Entry	• Online platform for software education • Provides various tools for learning, creation, sharing, and collaboration	• Monthly active users: 1 million • Subscribed members: 3.6 million • No. of works: 27.1 million
Education that helps people build career capabilities and grow in the IT field	Boost Course	• An online practical competency improvement program where you can learn core technologies in the IT field such as AI, data science, basic computer science, web, mobile, etc. through practice to improve your practical competencies and skills. It offers a learning campaign coaching study that helps software beginners easily start their training.	• Cumulative number of trainees: 460 thousand • Cumulative number of graduates: 15,900 • Coaching Study graduates: 5,000
	Boost Camp (Web/Mobile, AI Tech)	• Training program aimed at fostering outstanding IT talent - it develops experiences and skills needed for developers by providing a highly-intensive self-directed learning experience for around six months	• No. of persons who completed the program: 700 • Cumulative number of graduates: 1,700 (Web Mobile: 843, AI Tech: 897)
An environment where everyone has equal access to educational opportunities	Edwith	• Operated as a massive open online course (MOOC) service • Provides classes on basic concepts of software coding as well as web/mobile development and AI	• Monthly active users: 80,000 • Subscribers: 1.6 million (Boost Course, Edwith integration)
	KHAN Academy	• An online education service that enables anyone to access world-leading education, free of charge, NAVER Connect Foundation became the fifth official partner (first in Asia) of KHAN Academy in 2016. • Provides learning management systems (LMS), video lectures, practice problems, etc., thus enabling complete learning	• Monthly active users: 150 thousand • Subscribers: 750 thousand
Supporting a research environment	Education data disclosure	• NAVER Connect Foundation's educational service data and research funding support • Open BoostCamp AI learning data for anyone to practice	• Number of researchers provided with educational data: 36 • Number of provided AI learning data: 183

* As of 2022 year-end

Growing Together with Local Community

GIVING

Happybean

Happybean is NAVER's online platform that serves various public interest projects aimed at building a better society. It started as a donation portal in July 2005 and has expanded its services for users and public interest parties to include Funding, Happybean Empathy Store, Shall We Go, and Good Action Campaign. Through NAVER's technology platform that fosters the value of connection, we connect people around us closer and support a greater connection with the world, while carrying out specialized social contribution activities unique to NAVER.

Donations

The donation service offered by NAVER, Happybean's first public interest service, is designed to allow joyful changes to be made with just one click. Based on various donation targets and themes, it has now grown into a space where approximately 3,300 public interest groups meet 1 million donors annually. In 2022, we raised KRW 26.5 billion in donations with the participation of approximately 1.8 million donors.

The service enables public interest organizations with relatively limited financial resources and PR capabilities to interact with donors with fewer resources and effort. The service also contributes to enhancing the credibility of donation activities by continuing to improve the "Happylog" platform, where people can find information on public interest organizations at a glance.

It is leading the way in building a donation culture in which people can participate in a fun way in their daily lives through a wide range of promotions, such as Donation Bean, which provides users with donation items when they use NAVER services free of charge, and Double Donations, whereby NAVER and other sponsor companies match the donations made by users. Furthermore, the service has adopted an installment savings system to promote regular donation beyond temporary sharing, as well as recommending public interest groups that fit the direction of corporate social cont ribution activities, managing fund distribution, and providing professional social contribution consulting.

Funding

Through its Funding service, Happybean introduces meaningful products created by public interest organizations, creators and social ventures that are striving to address social problems. Additionally, the platform fee incurred during the project process is fully supported by Happybean. "Happybean Funding" was launched in 2015 to raise social interest in the projects promoted by SMEs and the creators pursuing social values. As a result of collaboration with various companies and organizations, its accumulated amount of support funds stood at KRW 23.2 billion as of the end of 2022, with a running total of 470,000 participants.

Happybean Empathy Store

We help those who participated in the Funding continue to interact with users after the Funding has ended through the Happybean Empathy Store by supporting their promotion activities and helping them build their brand pages on NAVER Smart Store. There are around 230 Happybean Empathy Stores that comprise various products, including fashion accessories, food, daily life/detergents, and travel/culture, through which we are realizing fair trade, eco-friendliness, and creation of jobs.

Shall We Go

Happybean, which evolved from donations to the Funding service and the Happybean Empathy Store project, launched "Shall We Go" in March 2019 in order to connect online users with offline community service projects. Shall We Go uses NAVER's reservation service to enable users to take part in volunteering activities and other community service projects hosted by social enterprises or cooperatives. As of the end of 2022, the number of public interest organizations and social ventures involved in Shall We Go stood at 243.

Good Action

Good Action is a campaign that informs the company's social contribution activities in an interactive way by opening a page where users can participate in various ways such as donations, cheering clicks, and comments. By posting engagement actions suitable for corporate fundraising activities on the campaign page and paying the users' participation in donation beans, Good Action expands the scope of donation to learning about the campaign itself.

National Disaster Recovery Support in 2022

Donation box for the Gangwon-Gyeongbuk wildfire restoration

DONATED APPROXIMATELY

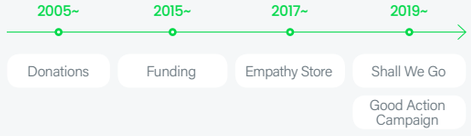
KRW 3,370 million

Donation box for the heavy rain/typhoon recovery

DONATED APPROXIMATELY

KRW 550 million

Key Milestones of Happybean



Accumulated Number of Happybean Beneficiaries

Current status of Happybean

* As of March 2022 since the beginning of data collection in 2018

ESG COMMITMENT 4

Maintaining and further improving transparency of corporate governance

2022 KEY HIGHLIGHTS

KRW 137.1 billion of cash dividend in 2022
(Aug. 2022)

Dividend of KRW 137.1 billion

Comply with 14 out of 15 Code of Best Practices for Corporate Governance

Code of Best Practices for Corporate Governance compliance rate of 93%

"Leader" in Corporate Governance by MSCI ESG ratings
(Dec. 2022)

Corporate governance leader

MSCI

Maximizing Sustainable Business Value

The foundation of sustainable growth and development for a company lies in a transparent and sound corporate governance. NAVER is committed to ongoing efforts in establishing a transparent and trustworthy corporate governance system at a global leading company level, under the supervision of the Board of Directors focused on the leadership and expertise of management newly appointed in 2022.

MANAGEMENT APPROACH

Corporate governance disclosure is an important gateway to enhancing understanding of the governance system that the board of directors and management have in place to put their vision into practice. It also increases predictability in corporate decision-making. Particularly, shareholders have the right to receive timely and adequate information necessary for exercising their shareholder rights. Companies need to ensure accessibility to information for stakeholders, including shareholders, and actively engage in effective communication with them. NAVER discloses detailed information about responsible management activities of its management and Board of Directors through its annual Corporate Governance Report, while also transparently communicating its practices and achievements in elevating corporate governance. We also have been making continuous efforts to communicate with shareholders and investors through a variety of channels, enhance shareholder value, and improve the BOD structure. As a result of these efforts, NAVER has been recognized and evaluated by domestic and international ESG rating agencies as having a robust governance system that aligns with the interests of shareholders, considered among the best in the industry.

OUR KEY PERFORMANCE INDICATORS (KPI)

Further enhancing BOD composition and operation

- Advance board performance assessment system

Shareholder return policy

- Review and disclose dividend size based on mid- to long-term dividend policy

Building advanced ESG governance

- Establish an ESG data management system and expand its scope to include subsidiaries
- Provide support for NAVER's major subsidiaries in building ESG management systems

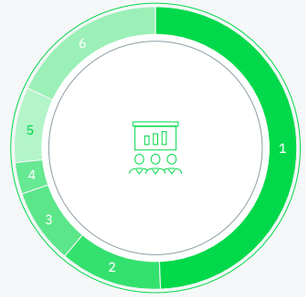
Maximizing Shareholder Value

NAVER strives to achieve corporate growth that leads to the enhancement of shareholder value through its shareholder-friendly management. In particular, we are striving to establish a transparent share structure, such as a more diverse and dispersed shareholder composition, and a single listed company system, with no transactions between the founder and other related parties. We will make continuous efforts to become a trusted company by disclosing information to and engaging in active communication with our shareholders.

SHARE AND CAPITAL STRUCTURE

NAVER's largest shareholder is the National Pension Service and foreign investors account for approximately 50% of the shareholder composition. According to NAVER's articles of incorporation, the total number of shares that can be issued is 300,000,000(face value of one share: KRW 100); all issued shares are ordinary shares; and voting rights are granted according to the number of shares. As of the end of December 2022, the number of shares issued by NAVER is 164,049,085, and the number of treasury shares is 14,067,367. Shares with voting rights account for 91.42% or 149,981,718 of all issued shares.

Shareholder Composition



1 Foreigners 49.5%

2 Domestic institutions 11.8%

3 Major shareholder (National Pension Service) 8.4%

4 Haejin Lee 3.7%

5 Treasury shares[1] 8.6%

6 Individuals in South Korea and other companies 18.0%

* As of 2022 year-end

Type of Shares and Voting Rights

(Unit: Shares)

Classification	Type of shares	Number of shares	Note
Total number of shares issued	Ordinary shares	164,049,085	-
	Class shares	-	-
No. of shares without voting rights	Ordinary shares	14,067,367	Treasury shares[1]
	Class shares	-	-
No. of shares with voting rights	Ordinary shares	149,981,718	-
	Class shares	-	-

[1] NAVER operates various employee stock compensation programs to enable both the company and its employees to grow. In 2022, the company disposed of 682,763 treasury shares through such activities as stock option and stock grant.

Share Price Change

	2020	2021	2022
Highest (KRW)	339,000	465,000	376,000
Lowest (KRW)	144,000	285,500	158,500
Year-end (KRW)	292,500	378,500	177,500
KOSPI Index (year-end, points)	2,873.47	2,977.65	2,236.40
Market capitalization (KRW million)	48,046,995	62,092,547	29,118,713

Maximizing Shareholder Value

INVESTOR RELATIONS

NAVER does its utmost to increase shareholder value and earn market trust by communicating with shareholders and investors through various channels based on a systematic IR policy. We operate a separate IR page on our website in both Korean and English so that shareholders can easily obtain relevant information. We disclose our business reports, articles of incorporation, and audit reports at the general shareholders' meeting (GSM) to help investors make decisions based on more accurate information. In addition, we provide investors with opportunities to communicate with us, such as Corporate Days and conferences hosted by domestic and foreign securities companies, and NDRs at home and abroad. When necessary, our top management and directors hold direct meetings with investors.

In May 2023, NAVER sent out the CEO Letter to Shareholders, which focused on our efforts to establish a transparent corporate governance structure. We actively communicate our direction and business status through meetup events with analysts, and plan to increase the participation of external directors in key IR events. Such initiatives will allow our shareholders to express their expectations about NAVER directly, and we will reflect their feedback in the board of directors' decisions. The company will also explore various measures to foster innovation and carry out shareholder-friendly operations.

Investors section in NAVER website

PROTECTING SHAREHOLDER RIGHTS AND INTERESTS

NAVER provides sufficient information on the GSM to shareholders in advance to allow them to exercise their rights. We convene the GSM and announce it via an electronic document at least four weeks in advance, and we encourage our shareholders to exercise their voting rights.

We introduced the electronic voting and electronic power of attorney systems in 2021 as part of our efforts to enhance shareholders' convenience. We distribute the power of attorney forms through disclosure attachments, encouraging shareholders to delegate their voting rights. In 2021, we conducted live streaming, taking into account the COVID-19 situation, to facilitate easy exercise of voting rights by shareholders. Furthermore, we have held the GSM since 2021 on a day when many other companies do not hold their GSMs, aiming to enhance shareholder convenience, while complying with the GSM notice four weeks in advance guideline set forth in the Corporate Governance Code of Practice.

SHAREHOLDER RETURN POLICY

In order to increase the predictability and transparency of shareholder returns, NAVER established a three-year shareholder return policy (from 2019 to 2021) and disclosed it publicly. As a part of this, the company distributed annual cash dividends, repurchased and cancelled treasury shares every year. Under this policy, the amount of shareholder returns was set at 30% of the average consolidated free cash flows for the past two years, with the aim of stabilizing the size of the returns, while mitigating fluctuations caused by changes in the business environment. NAVER had maintained the dividend payout ratio at 5% of separate net income, and then used any remaining funds after dividend payments as a limit for the immediate retirement of treasury shares. However, after disclosing the initial shareholder return plan, the company introduced an employee stock compensation system linked to its performance, and there was a demand for the strategic use of treasury shares, such as stock exchanges and the utilization of acquisition funds. Due to the constraints imposed by the Capital Markets Act and the Company Act in Korea, the disposal and acquisition of treasury shares had some limitations, leading NAVER to change its detailed method of executing the previously announced overall share return plan. As a result, the remaining funds of approximately KRW 137.1 billion, which were the sum of KRW 51.4 billion and KRW 85.7 billion, representing 5% of separate net income for 2020 and 2021, respectively, were paid out as a special quarterly dividend in November 2022.

In addition, with the conclusion of the 3-year shareholder return policy in 2022, we announced the new 3-year shareholder return policy in May 2023. Under the new shareholder return plan, considering the business environment, particularly the debt ratio and debt repayment plans, the company plans to allocate 15-30% of the average consolidated free cash flows over the past two years to cash dividends. This has been set with the goal of maintaining the medium- to long-term debt ratio at 2.0 to 2.5 times the Debt/EBITDA, taking into account such factors as debt repayment plans. Apart from that, the company plans to retire approximately 1% of its total treasury shares annually over a 3-year period, amounting to 3%, in order to enhance shareholder value. However, some treasury shares will be retained within 5% for the utilization of employee stock compensation plans and other purposes in the long term.

Dividend

	2020	2021	2022
Net income (Separate figure, KRW million)	1,196,925	1,524,755	1,092,158
Cash dividend (KRW million)	59,279	76,292	137,072
Cash dividend per share (KRW)	402	511	914
Payout Ratio (Separate figure, %)	5.0	5.0	12.6

Ensuring Executive Compensation Transparency

Under the new leadership appointed in 2022, NAVER seeks to fulfill our role as a more reliable base for its global businesses through groundbreaking innovations and transparent communications.

SUCCESSION POLICY FOR MANAGEMENT

NAVER's BOD had established the roles and qualifications required of the new management. For instances, it recommended and validated competent and qualified candidates, with the goal of successfully creating synergy with partners at home and abroad, promoting cooperation between different businesses, conducting strategic portfolio reorganization, and incubating new businesses. Furthermore, to ensure transparent corporate governance and sustainable growth, the responsibility for overseeing the succession process has been clearly assigned to the Leadership & Compensation Committee under the BOD. In 2022, a four-stage succession policy was established based on global standards to manage executive succession in a more detailed and systematic manner.

MANAGEMENT PERFORMANCE EVALUATION AND COMPENSATION

Executives of NAVER receive comprehensive performance evaluations against the mid- to long-term goals set by the Leadership & Compensation Committee within the BOD, as well as the company's goals and tasks for the year. NAVER sets its management performance evaluation criteria by establishing KPIs for each business entity so that its vision can be reflected in the management goals of the executives against the backdrop of the company's rapid expansion into various business areas. The performance-based compensation at NAVER consists of target incentives and restricted stock units (RSUs). The target incentives are set within 50% to 150% of the target amounts according to the performance of the entity and its executives at the end of the year, after determining the target amounts at the beginning of the year in consideration of the importance and difficulty of individual tasks, within a maximum of 150% of the base salary. With regard to RSUs, the size of the grant is determined considering the expected role and contribution to the company's growth.

The RSUs are structured to be paid out in three installments over three years, with 30% in the first year, 30% in the second year, and 40% in the third year. The final payout amount is determined based on the relative stock price performance compared to companies within the KOSPI 200 index (based on the preceding year's 1st to 4th quarter), ranging from 0% to 150%.

Management Succession Procedure

1. Definition of Qualification

As the CEO of NAVER, the required qualifications are discussed in conjunction with the medium to long-term business direction. Each year, an assessment is conducted to determine whether updates to the defined qualifications are necessary.

2. Selection of Candidates

The internal long list of candidates is reviewed annually, and in situations where the appointment of new top executives is necessary, a balanced evaluation is conducted not only among internal candidates but also among external candidates.

3. Management and Development

Based on NAVER's management philosophy and development system in alignment with model leadership, we define leadership capability according to roles required for each position throughout the organization, in addition to potential candidates, and support effective development. In particular, for potential candidates for top executive positions, the important competency of being a "change leader" is emphasized. To support this, a new program called the "Insight & Trends" session was introduced in 2022.

4. Verification and Appointment

In the event of a need for the appointment of new top executives, a long list of candidates is re-evaluated to verify and recommend the most suitable candidate. This process involves a thorough assessment and scrutiny of the candidates. Subsequently, the final appointment is subject to the approval of the shareholders' meeting.

Ensuring Executive Compensation Transparency

The strengthening of its ESG management is a short-term and mid-to long-term goal of NAVER's inside directors. NAVER manages non-financial factors made by inside directors that may affect corporate growth and ensures that ESG-related demands from various stakeholders are reflected in their performance evaluation. The BOD reviews significant ESG objectives and initiatives that align with the company's long-term goal of "enhancing corporate value through ESG-based management systems" and assigns them to internal directors each year. The achievement of these objectives is evaluated and taken into consideration when determining the remuneration scale for the internal directors.

In 2022, the Leadership & Compensation Committee evaluated the roles and contributions of inside directors in implementing ESG tasks aimed at enhancing corporate value, and the evaluation results were reflected to director's financial reward.

Calculation of Inside Directors' Remuneration

Earned income	Salary	Decided by the Leadership & Compensation Committee in consideration of the roles and the value of the job performance of each inside director
	Bonus	Short-term performance • Target Incentive: Determined by the Leadership & Compensation Committee based on quantitative indicators (operating revenue, EBITDA) and non-quantitative indicators (tasks to discover future growth engines of the company) Mid- to long-term performance • Determined by the roles and level of contributions expected to corporate growth according to the mid-to long-term corporate growth goal reported to the Leadership & Compensation Committee • RSU, Stock options
	Profit from exercise of stock options	
	Other earned income	Paid according to the welfare standard
Retirement income		Paid based on personnel regulations for executives, etc. and executive severance pay regulations

Reflecting KPIs in Executive's ESG Performance*

Position	2022 goals and tasks	Evaluation results by Leadership & Compensation Committee
CEO	1. Corporate culture based on trust and autonomy	• Restored employees' trust by conducting employee engagement surveys and sharing critical business decisions through Companion Day • Reorganized the job group categorization system and prepare a career growth roadmap for each group • Established a trust-based autonomous working method and culture by introducing a "Connected Work" work system • Advancing a global support system and leadership pool
	2. Laying the groundwork for mutual growth of SMEs, partners, and employees	• Provided eco-friendly packaging materials to strengthen the ESG capabilities of SMEs and partners and opened a new training course within NAVER Business School
	3. Expanding the commerce ESG ecosystem	• Strengthened external cooperation to expand the eco-friendly commerce ecosystem and continued to discover ESG brands and spread products
	4. Establishment of 2040 Carbon Negative	• Became the first IT company in the world to join all three environmental initiatives (CDP, RE100, EV100) and established a roadmap for renewable energy conversion

* The evaluation results of the 2022 goals and tasks for enhancing ESG-based corporate value is reflected in non-quantitative indicators among the calculation standards for target incentives corresponding to annual short-term performance (the share of target incentives in the CEO's compensation system in 2022 was 30-35%).

CEO-to-Employee Compensation Ratio

(Unit: KRW million, %)

CEO remuneration (Increase rate of remuneration)	Average of total remuneration of employees[1] (Increase rate of average total remuneration)	Ratio of CEO's remuneration to average of total remuneration of employees (Ratio of increase rate[2])
1,100 (-60.4)	134 (4.1)	8.2 (-14.6)

[1] Average of employee remuneration excluding registered directors' remuneration

[2] Ratio of increase in the CEO's remuneration compared to the increase in the average total remuneration of employees

Ensuring Sound BOD Operation

The Board of Directors is shaping NAVER's sustainable governance model by taking diverse shareholders' opinions into account in making decisions and supervising management.

FURTHER ENHANCING CORPORATE GOVERNANCE

In March 2021, NAVER established the Corporate Governance Charter in order to share its values with diverse partners, including users, shareholders, and employees, and to build trust in the company's management direction. In addition, we disclose the difference between the Best Practices for Corporate Governance of the Korea Institute of Corporate Governance and Sustainability (KCGS) and the current corporate governance status of NAVER on our website.

NAVER has published the annual Corporate Governance Report and disclosed through DART (Data Analysis, Retrieval and Transfer System) of the Financial Supervisory Service since 2019, when the disclosure of corporate governance reports became mandatory. In our Corporate Governance Report disclosed in 2022, we stipulated our promises and action to establish a stable and independent corporate governance structure by clarifying six key features of our corporate governance – transparent and sound governance, BOD composition centered around experts, independent and transparent internal audit system and compliance management, open professional management system, strengthening capacity through active board activities and performance evaluation, and composition of diverse, professional committees.

COMPOSITION AND INDEPENDENCE OF THE BOD

The majority of BOD at NAVER is comprised of outside directors, appointed after thorough review by the Outside Director Nominating Committee, ensuring its BOD operation principle centered on outside directors since 2012, when the company's total assets exceeded KRW 2 trillion. The company can appoint at least three and at most seven directors pursuant to the Commercial Act and the Articles of Incorporation, and, as of April 2023, the BOD consists of seven members, four of whom are outside directors, comprising a majority of the BOD. NAVER has separated the roles of the CEO and the Board Chairman, which has reduced dependence on executive management in decision-making and ensured the independence of the BOD, thereby strengthening the BOD's role in supervising management and its transparency.

In order to prevent conflicts of interest, the BOD strictly complies with regulations which stipulate that "Of those attending the BOD, a person with a specific interest in a BOD resolution cannot exercise his/her voting rights." Having built a system that enables effective discussions and prudent decision-making, NAVER's BOD is performing its functions independent from its management and the controlling shareholders.

To ensure more professional and systematic operations, the BOD has established five sub-committees in accordance with the Articles of Incorporation and the Board's operation regulations. Four out of the five BOD sub-committees (Audit Committee, Outside Director Nominating Committee, Risk Management Committee, Leadership & Compensation Committee, and ESG Committee), excluding the ESG Committee, are entirely composed of independent directors.

As for the ESG Committee, it includes an inside director among its members so as to better execute the tasks suggested by the Committee, but a majority of its members is composed of independent directors.

At the regular general meeting of shareholders in March 2023, a non-executive director was re-appointed. NAVER strictly follows the reappointment limits for outside directors specified in the Commercial Act Enforcement Decree. In turn, the tenure of directors is evenly distributed. Within the BOD, the number of female directors among seven directors is two, representing 29% of the total, and the board is composed of individuals spanning the age range from 40s to 60s.

Board of Directors and Sub-Committees

The Board Organization

* As of 2022 year-end

Characteristics of the Board

INDEPENDENCE

- Ensure BOD independence by separating the roles of the CEO and the Board Chairman
- Have the BOD consist of a majority of outside directors
- Restrict the exercise of voting rights of a director with a specific interest in a BOD resolution

EXPERTISE

- Appoint experts who have extensive knowledge and industry experience in diverse areas that are necessary for corporate management, including finance, law, and accounting
- Prohibit persons who have difficulty in performing duties or who can influence management of a listed company negatively; in case of concurrent position, must receive BOD approval

TRANSPARENCY

- All directors are appointed by a resolution at the AGM
- All committees, excluding the ESG Committee, are composed of only outside directors

DIVERSITY

- When choosing a candidate, no restrictions are placed based on race, gender, age, religion, disability, nationality, region, political inclination, etc.

Ensuring Sound BOD Operation

Composition of the Board

Position	Name (Gender)	Date of Birth	Professional & Educational Background		Term
Other Non-executive Director (Chairman of the Board)	Byun Dae-gyu (Male)	Mar. 1960	• Ph. D. in Control and Measurement Engineering, Graduate School of Seoul National University • President & CEO, Humax • Outside Director, SK Telecom • Outside Director, POSCO	• Vice President, The National Academy of Engineering of Korea • (Current) President & CEO, Humax Holdings • (Current) Chairman of the Board of Directors, Humax	Mar. 2017 – Mar. 2026 Reappointed (2)
Outside Directors	Lee In-moo (Male)	Jun. 1966	• M.S./PhD in Finance, University of Illinois at Urbana-Champaign • Vice President, Dimensional Fund Advisors • Member of Foreign Exchange Asset Management Advisory Committee, Bank of Korea • Member of Risk Management Committee, National Pension Service	• Advisor, Samsung Asset Management • Member of Advisory Committee, Korea Institute of Finance • Dean of KAIST Business School • (Current) Outside Director, GS Retail • (Current) Professor at KAIST Business School • (Current) Member of the Corporate Governance Committee, Korea Corporate Governance Service	Mar. 2018 - Mar. 2024 Reappointed (1)
	Jung Do-jin (Male)	Jan. 1969	• Ph.D. in Accounting, Kentucky University • Assistant Professor, West Texas A&M University • Team Leader of Accounting Administration Department, Financial Supervisory Service • Member of Evaluation Team for Management Performance of Public Corporation or Quasi-Governmental Institution, Ministry of Strategy and Finance	• Accounting Oversight Deliberation Committee, Financial Supervisory Service • Member of International Public Sector Accounting Standards Board (IPSASB) • (Current) Professor of Accounting, Chung-Ang University Business School • (Current) Member of Listing Committee, Korea Exchange • (Current) Member of the National Accounting System Deliberation Committee, Ministry of Strategy and Finance • (Current) Outside Director, LOTTE Himart	Mar. 2019 - Mar. 2025 Reappointed (1)
	Lee Keon-hyok (Male)	Jul. 1963	• M./Ph.D. in Economics, London School of Economics and Political Science • Senior Researcher, International Monetary Fund, Development Bureau, Policy Analysis • Senior Economist, J.P Morgan	• Vice President, Samsung Global Communications Group • (Current) CEO, Shinhan Financial Group Future Strategy Research Center	Mar. 2021 - Mar. 2024
	Rho Hyeok-joon (Male)	Sep. 1970	• Ph.D. in Law, Seoul National University • Northwestern University School of Law, LL.M. • Judge, Seoul Southern District Court	• Assistant Professor, Dankook University College of Law • Visiting Scholar, Harvard Law School • (Current) Professor, Seoul National University School of Law	Mar. 2022 - Mar. 2025
President & CEO	Choi Soo-yeon (Female)	Nov. 1981	• Bachelor of Science in Mass Communication/ Earth Environmental System Engineering, Seoul National University • NAVER Corporation (Formerly NHN), Communications and Marketing • M.A. in Graduate School of Law, Yonsei University	• Attorney at Yulchon LLC • Harvard Law School LL.M • Head of Global Business Support, NAVER Corporation • (Current) President & CEO, NAVER Corporation	Mar. 2022 - Mar. 2025
Inside Director	Chae Sun-joo (Female)	Jun. 1971	• B.A. in Business Administration, Incheon National University • Head of Public Relations, NAVER Corporation • Head of Talents Development Division, NAVER Corporation	• Head/Director of Communication Group, NAVER Corporation • Chief Communication & Culture Officer, NAVER Corporation • (Current) Director of External/ESG Policy, NAVER Corporation	Mar. 2022 - Mar. 2025

* As of March 31, 2023

Changes in the BOD Composition

	2022	2023
Appointed	Rho Hyeok-joon, Choi Soo-yeon, Chae Seon-ju	Byun Dae-gyu
Resigned	Cheong Ui-jong, Han Seong-sook	

* As of March 2023

BOD Skill Matrix (BSM)

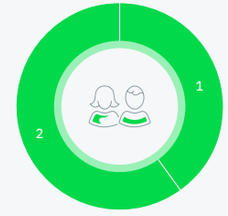
	Byun Dae-gyu	Lee In-moo	Jung Do-jin	Lee Keon-hyok	Rho Hyeok-joon	Choi Soo-yeon	Chae Seon-ju
Laws, policy, risk management			○		○	○	
Corporate management, finance, financial management	○	○	○			○	
Industry and economy	○			○		○	○
ESG		○		○	○		○
Communication and stakeholder response				○		○	○

BOD Diversity

Age

41 — Average 53.7 — 63

Gender



1 Female 2 persons
2 Male 5 persons

Term

1 1 year 3 persons
2 2 year 1 person
3 3 year 1 person
4 4 year 1 person
5 5 year 1 person

Ensuring Sound BOD Operation

APPOINTMENT OF DIRECTORS AND PREVENTION OF CONFLICTS OF INTEREST

When appointing outside directors, NAVER carefully checks their qualifications under the relevant laws and submits the "Confirmation of Qualifications for Outside Directors" and "Confirmation of Meeting Qualifications for Outside Directors" to the Korea Exchange. In addition, we check their interests in detail, such as their ownership of stakes in other companies, their current ownership status of shares in NAVER and its subsidiaries, and their previous employment in NAVER or its subsidiaries to establish a transparent and independent BOD. We select candidates who meet the aforementioned criteria as outside directors by checking whether they have a significant stake in NAVER, among others, through the process.

Moreover, to prevent conflicts of interest among directors, Article 9 of NAVER's Corporate Governance Charter "Director's Duties and Responsibilities" stipulates that in cases where a director may directly or indirectly influence his/her personal, commercial, or professional interests, he/she shall not participate in any deliberation or decision-making process related thereto. NAVER continuously analyzes and checks conflicts of interest between directors and NAVER or its subsidiaries to prevent the occurrence of conflicts of interest in advance. When the risk of a conflict of interest is expected, NAVER strives to resolve the conflict by devising a solution in advance.

Criteria of disqualification as an outside director

1. Directors, executive directors and employees who are engaged in the regular business of the relevant company; or directors, auditors, executive directors and employees who have engaged in the regular business of the relevant company within the latest two years
2. The largest shareholder, his/her spouse, lineal ascendants and lineal descendants
3. Directors, auditors, executive directors and employees of the corporation, in cases where the largest shareholder is a corporation
4. Spouse, lineal ascendants and lineal descendants of directors, auditors and executive directors
5. Directors, auditors, executive directors and employees of a parent company or a subsidiary company of the relevant company
6. Directors, auditors, executive directors and employees of a corporation which has a significant interest in the relevant company, such as a business transactional relationship like a significant customer or supplier of the company
7. Directors, auditors, executive directors and employees of another company where directors, executive directors and employees of the relevant company serve as directors and executive directors

OPERATIONS OF THE BOD

As NAVER's standing top decision-making body, the BOD is operated by directors who have extensive professional knowledge and experience in such fields as management, economy, finance, accounting, law, and technology. To assist outside directors with the smooth execution of their duties, the BOD Secretariat and each relevant department[1] frequently provide the information and resources they require, while external training is provided to further strengthen their competencies. In 2022, to raise the level of outside directors' understanding of NAVER business, we ran seven training sessions on our business status and strategies, in addition to five training sessions on ESG trends and NAVER's ESG improvement measures.

NAVER complies with the Articles of Incorporation and the BOD's regulations and guidelines for its overall BOD operations. In principle, we hold a regular BOD meeting once a month to allow prompt decision-making and sufficient discussion and review of the proposed items of agenda, and we hold extraordinary board meetings from time to time as and when necessary.

In particular, in our effort to increase directors' participation rate, we finalize the following year's regular BOD meeting schedule every December, report to the BOD, and check the schedules of directors in advance, leading to the 98.3% of attendance rate of outside directors on average in 2022. None of the Board members, including resigned outside directors in 2022, had a board attendance rate of less than 75%. In 2022, the BOD held a total of 14 meetings, including 9 regular meetings and 5 extraordinary meetings, to make decisions on 25 resolution items and 22 report items.

[1] Board of Directors (BOD Secretariat), Outside Director Nominating Committee (BOD Secretariat), Risk Management Committee (Risk Management Working Group, Compliance Organization), Audit Committee (Internal Audit), Leadership & Compensation Committee (Leadership Channel), ESG Committee (Green Impact)

Appointment Process for Outside Directors

Ensuring Sound BOD Operation

Committees under the BOD

● Chairperson ○ Member

Committee	Byun Dae-gyu	Lee in-moo	Jung Do-jin	Lee Keon-hyok	Rho Hyeok-joon	Choi Soo-yeon	Chae Seon-ju
Audit Committee		○	●	○	○		
Outside Director Nominating Committee	●	○	○				
Risk Management Committee		○	○	○	●		
Leadership & Compensation Committee	○	●	○				
ESG Committee				●	○		○

* As of March 2023

Functions by Committee

Audit Committee	• Supervise the work of directors and the management • Give approval for the selection of an outside auditor • Other matters stipulated in the Articles of Incorporation or internal regulations in relation to audit work
Outside Director Nominating Committee	• Establish, examine, and complement the principles of outside director appointment • Recommend candidates for outside directors who will be appointed at the GSM • Manage a pool of outside director candidates at all times and verify them
Risk Management Committee	• Establish basic principles and strategies regarding company-wide integrated risk management • Diagnose reasons of risk after occurrence of risks and discusses measures to be taken for improvement
Leadership & Compensation Committee	• Matters related to determination of compensation for the management and payment method • Matters related to designing and operating of a compensation system for the management, and evaluating the adequacy of the design and operations • Matters related to the decision making process regarding compensation policy
ESG Committee	• Make decisions on ESG-related management • Matters related to major ESG risk management such as climate change response • Deliberate the social contribution agenda

BOD Operation Results in 2022

Classification	Number of meetings held	Number of agenda items[1]	Outside director's attendance rate[2]
BOD	14	25 (47)	97.9%
Audit Committee	9	5 (20)	94.4%
Outside Director Nominating Committee	2	2 (2)	100%
Risk Management Committee	9	9 (26)	100%
Leadership & Compensation Committee	6	3 (9)	100%
ESG Committee	5	5 (14)	100%

[1] Figures in brackets mean number of agenda items including reports

[2] Average attendance rate of outside directors by each BOD or committee meeting date

Major BOD Resolutions in 2022

No.	Meeting Date	Major Agenda Items
1	01.03	Sale of treasury shares to give out stock grant
3	01.26	Approval of Q4 2021 earnings report and annual financial statements, 2021 shareholder return policy, introduction of the electronic voting system at the 23rd GSM, participation in capital increase of webtoons
4	02.11	Participation in capital increase of SNOW, convocation of the 23rd GSM
6	03.14	Appointment of a CEO, change in the composition of committees under the BOD, donations by the Connect Foundation
7	04.20	Relocation of head office and registration of branches, transaction with subsidiaries, the company's health and safety plan
8	05.18	Donation contribution via Happybean Foundation
9	07.01	Sale of treasury shares to give out stock grant
10	08.03	Change in the shareholder return policy
12	10.03	Strategic investment for the growth of NAVER's global commerce, issuance of guarantees to overseas subsidiaries for the establishment of Umbrella Facility
13	11.02	Rights issuance participation in KREAM, approval of quarterly dividend payout in accordance with the shareholder return policy, direction of delivery services and acquisition of related licenses
14	12.19	Paid-in capital increase of NAVER LABS, acquisition process of Poshmark and fundraising, cancellation of stock purchase options granted in 2022, revision of the operation regulations of the BOD and committees

* Pursuant to Article 368-3 of the Commercial Act, a director who has interests in certain agenda item was not allowed to participate in decision making (please refer to our business report for detailed information)

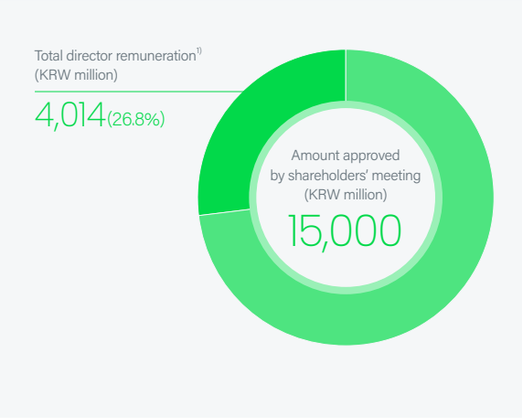
Ensuring Sound BOD Operation

EVALUATION AND COMPENSATION OF THE BOD

NAVER sets the remuneration ceiling of directors and auditors at the GSM and provides remuneration within the scope and in accordance with the criteria set by the BOD and the Leadership & Compensation Committee, based on the duties, performance, and other matters pertaining to the directors and auditors. For outside directors, remuneration is provided in the form of fixed pay, without any additional benefits or payments to cover meeting expenses. The remuneration takes into account the level of legal responsibility and the level of remuneration provided in the similar-size company in same or similar industries to ensure that the remuneration is in accordance with social norms. At the AGM held in March 2023, an agenda item was approved to limit the remuneration of directors to KRW 8 billion. Since the remuneration ceiling had been set somewhat higher than the actual payout rate over the past 10 years, discussions took place regarding an appropriate level. For 2023, in line with the cost control measures, the remuneration ceiling has been adjusted downwards to KRW 8 billion, approximately half of the previous level.

To clarify the duties and responsibilities of the BOD, including outside directors, and to enhance the efficiency of the BOD operations, NAVER conducts board performance evaluation. Each director is asked to complete a couple of surveys on the performances of the BOD as a whole and oneself. The former consists of items such as board composition, meetings, and activities. The latter is based on criteria such as fulfilling basic obligations, expertise, and external influence. Also, performance evaluations at the committee level also takes place. In this evaluation, directors review areas that need improvement in the future operations of the committees and gather specific opinions regarding the efficient division of roles between the BOD and the committees. Based on the results, NAVER is considering conducting in-depth discussions on improvement directions between the BOD chairman and the outside directors. The discussion topics and evaluation results will be taken into account as much as possible to support the operations of the BOD and the activities of the outside directors, with regular performance assessments planned for continuous improvement.

2022 Director Remuneration



[1] Income amounts under the Income Tax Act received by registered directors, outside directors, and members of the Audit Committee who served or retired in 2022 as registered executives

Director Remuneration Payment in 2022

Classification	No. of persons	Total remuneration (KRW million)	Average remuneration per person (KRW million)
Inside directors[2]	3	3,569	1,260
Outside directors and other non-executive director[3]	-	-	-
Audit Committee members	4	445	111

[2] Excluding outside directors and Audit Committee members
[3] Excluding Audit Committee members

AUDIT ORGANIZATIONS

Audit Committee

NAVER has established the Audit Committee pursuant to Article 542-11 of the Commercial Act and Article 48 of the Articles of Incorporation and specified its operation, authority, responsibilities, and others in the Audit Committee's operation regulations. The Audit Committee is composed entirely of outside directors, including finance and accounting experts and legal experts, to ensure their expertise and independence. It conducts accounting and work audits, while prioritizing further expansion of the independence and soundness of its governance. The Audit Committee has two accounting and financial experts who meet the statutory experience requirements. Members of the Audit Committee can independently supervise the work of directors by attending the BOD meetings, and may request the relevant departments to submit records and documents in relation to any tasks. Moreover, if necessary, they can receive reports on business matters from the company, and access management information in an appropriate way. In November 2022, we invited an external expert to train the Audit Committee members on the roles and responsibilities of the committee, thus empowering them to secure the expertise required of them.

In addition, NAVER appoints a Compliance Officer who meets the requirements set forth in Article 543-13 of the Commercial Act. The Compliance Officer independently monitors whether the management and employees comply with laws and regulations and are performing corporate management adequately. The Compliance Officer also continuously monitors and reports to the BOD to ensure compliance with compliance guidelines.

EXTERNAL AUDITOR

NAVER secures the fairness and transparency of its accounting information through regular audits by an independent outside auditor. To ensure the independence and expertise of the outside auditor, our evaluation criteria for the candidacy of outside auditor include independence and compliance with the regulations as well as expertise. In addition, quarterly meetings are held with the Audit Committee to review the details and quality of the audit. In 2022, Ernst & Young (EY) Han Young was selected as an external auditor, and the audit opinion for the 24th fiscal year (2022) was "unqualified" with no other matters raised.

Audit Opinion

Business year	Auditor	Audit opinion	Special notes in the auditor's report
24th (2022)	EY Han Young	Unqualified	None applicable
23rd (2021)	Samil PwC	Unqualified	None applicable
22nd (2020)	Samil PwC	Unqualified	None applicable

[Note] In 2022, NAVER changed its external auditor from Samil PwC to EY Han Young. This change was made in accordance with Article 11-1 and 11-2 of the Act on External Audit of Corporations, Article 17 of the Enforcement Decree of the same act, and Article 10 and Article 15-1 of the Regulations on External Audit and Accounting, which require periodic appointment of auditors. The appointed external auditor is expected to perform audits for the next three fiscal years except in special circumstances.

Audit Service Agreement

Business year	Auditor	Classification	Details	Service fee (KRW million)
24th (2022)	EY Han Young	Audit	Review of interim financial statements, audit of separate and consolidated financial statements	2,645
		Non-audit	Tax consulting services	75
			Tax consulting services	35

ESG COMMITMENT 5

Accomplishing 2040 Carbon Negative

2022 KEY HIGHLIGHTS

Earned LEED Platinum certification for all of NAVER's own office buildings

LEED Platinum

Became the first internet platform company to join both RE100 and EV100

RE100 & EV100

Implemented the Carbon Negative strategy by securing renewable energy for "1784"

Third-party renewable energy PPA

(First among office buildings in Korea)

Expanded the scope of environmental data under management to Scope 3 emissions and avoided emissions

Management and disclosure of Scope 3 emissions

Minimizing Carbon Footprint

The Intergovernmental Panel on Climate Change (IPCC) emphasized the urgency of climate action by stating that climate crisis is unequivocally caused by human activities in its sixth Assessment Report in 2021. NAVER announced the "2040 Carbon Negative" strategy aimed at making its net emissions below zero by 2040 and has been striving to accomplish the goal even since, starting with reducing its carbon footprint.

MANAGEMENT APPROACH

Extreme weather events and climate crisis occurring around the world mean that climate change has now intensified to a level that threatens our daily lives. With these signs as a backdrop, the economic entities in Korea and overseas, often considered to be the large-scale sources of carbon emissions, are making various efforts to reduce emissions and minimize negative environmental impacts from their business operations. These efforts encompass strengthening their technological capabilities as well as building high-efficiency, low-carbon infrastructure. In particular, NAVER runs data centers with high power usage and has thus set multiple environment-centered goals of 2040 Carbon Negative, 2040 RE100, and 2030 EV100. NAVER has made practical efforts to achieve them, such as concluding Power Purchase Agreement (PPA) and reducing idle power by streamlining its data center operations. Moving forward, NAVER will continue to reduce its GHG emissions and promote a circular economy through the scope of its eco-friendly ecosystem to the entire value chain, including users, partners, and subsidiaries.

OUR KEY PERFORMANCE INDICATORS (KPI)

Pursuing RE100

- Increase the company-wide renewable energy consumption to 7GWh in 2023

Pursuing EV100

- Turn 30% of corporate-owned vehicles into EVs by 2025

Strengthening NAVER's environmental management system

- Assist its major subsidiaries in establishing a system to respond better to the global disclosure of climate information

Expanding eco-friendly services of NAVER

- Expand the range of the company's eco-friendly services
- Track and disclose the services' contribution to avoided emissions

Adopting the internal carbon pricing system

- Set a company-wide plan to facilitate voluntary participation in the reduction of internal carbon emissions
- Promote the use of devices with low-carbon technologies

Striving to Reduce Carbon Emissions

NAVER is reducing negative environmental factors such as its carbon footprint for the future generations. In the long term, as an IT platform company, NAVER aims to contribute to the eco-friendly transition of the society as a whole by providing a variety of eco-friendly services. For the well-being of humanity and the future generations, we will expand the eco-friendly ecosystem through NAVER's technology and joint efforts with our partners.

CARBON NEGATIVE 2040

99% of NAVER's greenhouse gas (GHG) emissions is generated from the electric energy consumption at our internet data centers (IDCs) and office buildings. In addition, with the growth of our businesses, NAVER's GHG emissions are forecast to increase over the next decade, which may serve as a risk to easing climate change. NAVER recognizes the importance of the environment for sustainable business, and thus we established the "2040 Carbon Negative" strategy in 2020 to maximize environmentally salubrious effects while minimizing negative impacts. Carbon Negative is a strategy of offsetting the net amount of GHG emissions to 0 or less. To achieve this goal, we have set the following three detailed strategic directions and plan to implement relevant activities. By ① aiming for operational excellence to reduce our environmental impacts, ② pursuing avoided emissions by discovering eco-friendly services, and ③ expanding external partnerships, we will actively take part in accelerating the transition to a low-carbon economy. In this process, we are making joint efforts with several partners who use NAVER platforms to expand the eco-friendly ecosystem.

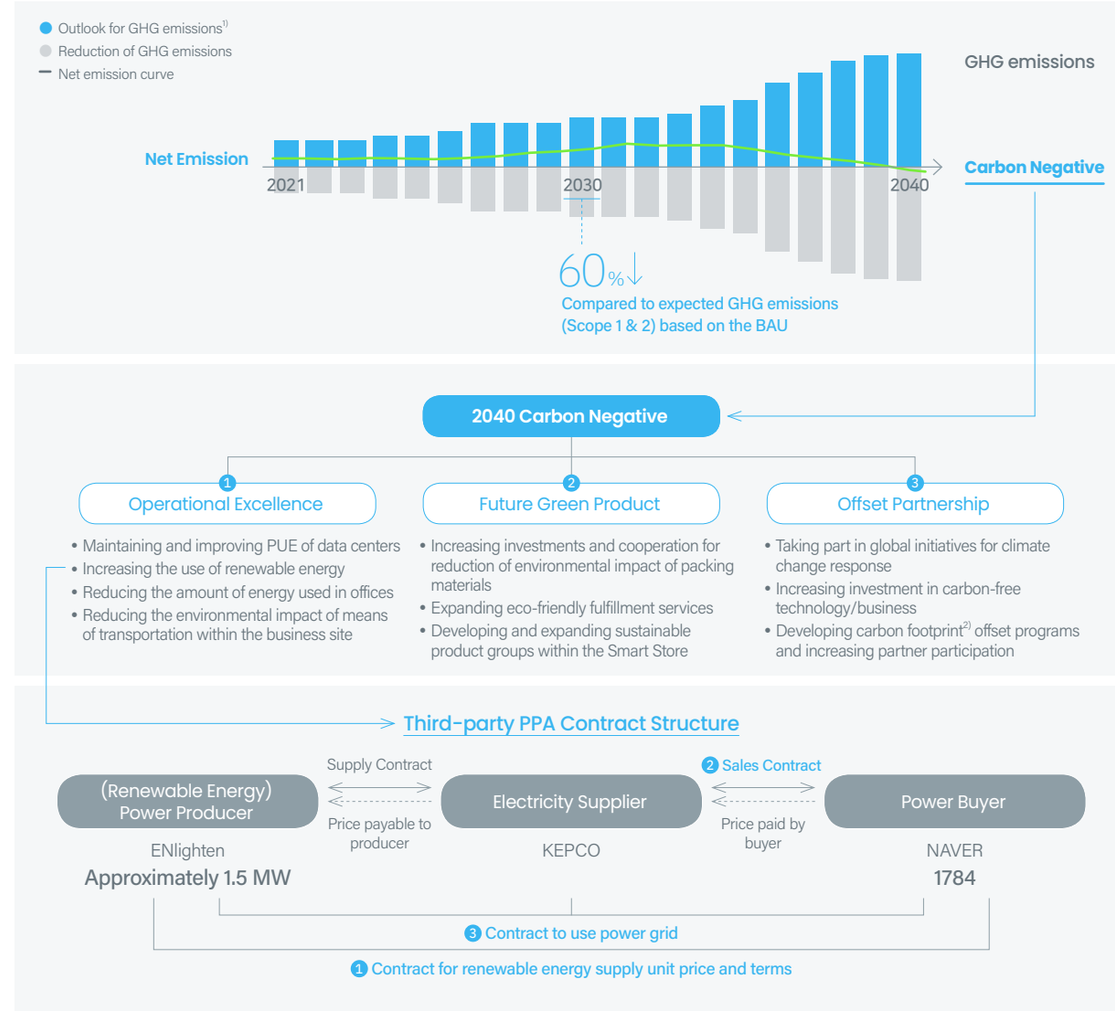
① Operational Excellence – Reducing Our Environmental Impact

NAVER strives to reduce the environmental impact of its office building and data center operations.

99% of NAVER's GHG emissions are generated from electricity use, rendering the reduction of carbon emissions from the use of electricity its biggest challenge. To solve this challenge, NAVER has been steadily seeking ways to secure renewable energy through external cooperation. As a result, we were able to secure renewable energy for the operation of our second office building "1784" through a power purchase agreement (PPA) with KEPCO and ENlighten in December of 2022. Concluding PPA has been a part of our plan to achieve RE100 and 2040 Carbon Negative. Through the third-party PPA, 1784 will source approximately 15% of its annual use of electricity from renewables.

Since 2012, when NAVER planned to build GAK Chuncheon, it has been thinking about ways to reduce its energy consumption and GHG emissions because power consumption for data management will continue to increase unless its corporate growth is stagnated. GAK Chuncheon is reducing its GHG emissions by using natural energy and developing energy-efficient facilities to reduce its electricity consumption.

2040 Carbon Negative Implementation Strategy



[1] An emission projection estimates future emissions based on current emissions
[2] Total greenhouse gas directly/indirectly emitted by an individual or organization

Striving to Reduce Carbon Emissions

Power Effectiveness (PUE) is a measure of the efficiency of a data center. It is the total amount of power divided by the amount of power consumed by the IT equipments. The closer the number is to 1, the greater the power savings. GAK Chuncheon maintains an average PUE of 1.1 by leveraging our advanced eco-friendly technology and improving operational efficiency. It is the highest level not only in Korea, but also among all IDCs of global IT companies.

In addition to emissions from Scope 2 electricity use, NAVER is continuously reviewing plans to reduce its Scope 1 GHG emissions. In 2022, we joined the EV100 initiative to reduce GHG emissions from vehicle fuel combustion and promised to switch 100% of our corporate-owned vehicles to eco-friendly ones and build EV charging stations at all of our office buildings by 2030. Accordingly, in 2022, we switched 13% of our corporate vehicles to EVs and built a total of 82 EV charging stations in Green Factory and 1784. Reduced mobile combustion GHG emissions, owing to the transition to EVs, amounted to 5,763 $kgCO_2e$[1].

EV charging facilities at 1784 and Green Factory are accessible by not only NAVER employees but also by customers and visitors. In anticipation of the expansion of eco-friendly EVs, we have secured facilities in advance to charge approximately 300 EVs, in addition to the currently installed charging stations. By building EV charging stations, we encourage our employees to switch to eco-friendly vehicles and reduce carbon emissions while commuting.

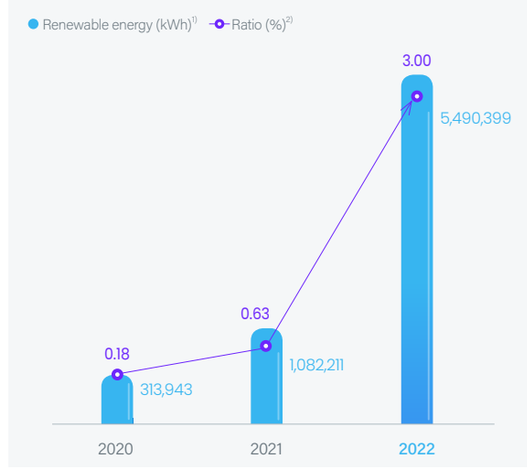
NAVER's total GHG emissions in 2022 were 86,991 tCO_2e, a year-on-year increase of about 10%. As the second office building 1784 began full-scale operation in 2022 and a new leased site was added to the emission calculation range, the absolute amount of GHG emissions increased. However, the GHG intensity decreased by 8.5% from the previous year to 10.58 tCO_2e/KRW billion.

[1] Upon comparing vehicles of the same class with the same mileage (G80 EV – G80, IONIQ 5 – Sonata)

PUE of Data Centers

* Construction, scheduled to be completed in 2023

Renewable Energy Consumption



[1] Renewable energy: Self-facility for solar power generation + self-facility for geothermal energy + PPA for renewable energy

[2] The ratio of renewable energy excluding geothermal energy: 0.15% in 2020, 0.17% in 2021, 0.31% in 2022

NAVER's Environmental Policy

NAVER strives to implement sustainable management based on environmental protection, social value creation, and transparent governance and fulfill its social responsibilities when offering a wide range of internet platform services. We have therefore established and implement our Environmental Policy to minimize the environmental impact caused by our corporate activities; actively respond to the environmental demands of our stakeholders such as shareholders, customers, and partners; and further spread the value of eco-friendliness to society. NAVER's Environmental Policy applies to all stakeholders involved in our business, including employees, subsidiaries, and partners. In addition, NAVER strives to deliver the value of our environmental management to our customers.

Upgrading the Environmental Management System

- We comply with environmental laws.
- We regularly analyze the environmental impact (energy, water, waste, etc.) of our corporate activities according to certified environmental management methodologies, such as ISO 14001, and make efforts of improvement yearly.

Mitigating Climate Change Risks

- We actively apply energy-saving technologies when building office buildings and IDCs. We develop and implement operational policies that can reduce energy consumption even after construction is completed.
- We actively review the use of renewable energy and reduce GHG emissions from building operations by using various methods such as PPA.
- We gradually convert the means of EV transportation used by the company to reduce our GHG emissions from them.
- We actively participate in environmental initiative activities to which the company has joined, such as RE100, EV100, and CDP, and proactively review and implement the recommendations of these organizations.

Spreading Eco-friendly Value throughout Supply Chain

- We strive to spread eco-friendly management to our partners by applying an eco-friendly methodology to the company's investment activities, including procurement.
- We also carry out activities that can enhance our partners' capabilities, such as identifying GHG emission amounts and conducting environmental education to improve their ESG management level.

Expanding Social Impact of Eco-friendly Values

- We strive to spread eco-friendly life throughout society by introducing eco-friendly elements into NAVER services.
- We collaborate with major environmental groups and institutions to ensure that environment-related information (anniversaries, environmental information, etc.) is effectively delivered to NAVER users.

Making Efforts to Conserve Biodiversity

- We collaborate with major environmental groups and organizations to help NAVER service users understand the ecological environment and biodiversity.
- We analyze the environmental impact of activities that affect the ecology, such as building office buildings, and strive to minimize any associated negative impacts.

ESG-dedicated team is in charge of implementing this Environmental Policy, while major decisions related to environmental management are made by the ESG Committee under the Board of Directors.

June 1, 2023
President & CEO, NAVER Corporation **Choi Soo-yeon**

Striving to Reduce Carbon Emissions

In 2021, NAVER introduced an environment-dedicated organization tasked with establishing annual implementation roadmaps for the 2040 Carbon Negative; building an environmental management system and achieving certifications to strengthen its internal management capacity; and conducting environmental education for employees. We also make continuous efforts to identify potential resource-saving activities at our business sites and supply chains, such as securing renewable energy through PPA and boosting our GHG reduction performance. The Environment team played a leading role in acquiring the ISO 14001 certification for our environmental management system in 2021. NAVER also has reviewed and revised its environmental management policies consistently. In response to the increasing environment-related demands from our stakeholders, we have established an environmental performance evaluation system to reduce our environmental impact continuously. In addition, we established environmental risk management guidelines for each business site based on TCFD guidelines, thereby enabling more systematic environmental risk management.

In 2022, we set environment-related KPIs (GHG, water resources, waste, etc.) for each business site and monitored the rate of progress. In 2022, NAVER's total water usage was 246,121 tons, which was a significant increase compared to the previous year. It was a temporary increase caused by internal inspections. However, if abnormally high temperatures persist for a long time while summers with a lot of precipitation become more frequent due to climate change, the water and energy usage of our data centers may increase. This may pose a risk to NAVER in practicing environmental management. Being aware of this, NAVER manages the operational performance of the environmental management system and continues to make efforts to discover possible improvements.

To ensure continuous improvement and effectiveness of its environmental management system, the staff in charge of environmental management have completed the ISO 14001:2015 lead auditor course. After completing the training, they identified the core requirements of the ISO 14001 standard and applied them to our environmental management system, striving to incorporate them into NAVER's work culture. The Implications of the training were discussed with the person in charge of operating the internal environment, and they have been jointly seeking ways to improve. In addition, as sustainability issues in the e-commerce sector continue to emerge, we have invited external experts to lecture at the "Commerce ESG Forum" for our e-commerce and ESG managers. At the forum, the participants received information on the current status of global e-commerce carbon reduction strategies and discussed the future direction of NAVER Shopping, climate response, and environment-related services and businesses for a sustainable NAVER. Going forward, we aim to maintain the environmental management system as part of our corporate culture while continuing to make efforts to pave the way for sustainable ESG-based growth engines.

② Future Green Product - Developing Green Products and Service Solutions

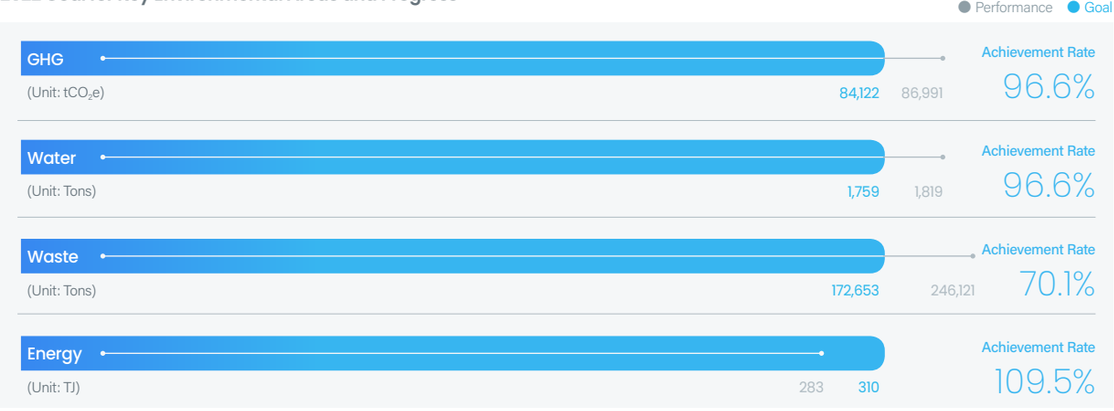
NAVER strives to create eco-friendly business opportunities from its fundamental business perspective.

NAVER works tirelessly to reduce Scope 1 and 2 GHG emissions from its business operations while systematically managing Scope 3 emissions from its value chains and employee activities. In addition, as a platform company, we are looking for ways to contribute to the eco-friendly transition of the entire society, which we believe is an important value from a business perspective as well as ESG's. We therefore look for ways to contribute to reducing carbon emissions in society and intend to present solutions as services. Furthermore, we pursue the goal of calculating carbon reduction quantitatively. Going forward, we will discover and improve eco-friendly aspects in our services, and then calculate resulting carbon reductions aimed at achieving 2040 Carbon Negative and contributing to transitioning to a low-carbon society.

Major Activities

- Eco-friendly Shopping
- Eco-friendly E-Document Service
- Eco-friendly Map Service

2022 Goal for Key Environmental Areas and Progress



Launching NAVER Internal Carbon Pricing TF

Since 2021, NAVER has been taking carbon price into account when making investment decisions. Some examples include decisions on concluding the third-party Power Purchase Agreement (PPA) to secure renewable energy for 1784 and the decision to convert 100% of its business vehicles to EVs. As the first step toward GHG reduction, we launched the Internal Carbon Pricing (ICP) TF to improve the procurement and investment process of our IT infrastructure which takes the largest portion of our Scope 3 emissions. The ICP TF aims to establish a system to consider the carbon price when making purchases and investments, which will enable us to reduce carbon emissions along with improving employee awareness of climate change. In 2023, we plan to apply the internal carbon pricing system in some areas, and later expand to the company-wide procurement and investment decisions.

Striving to Reduce Carbon Emissions

Scope 1, 2, 3 and Social Emissions Reduction

Job Training for Staff in Charge of the Environment at Business Sites

Date(s)	Content	Training Institution/Instructor	Hours	Department Trained	Purpose	No. of Participants
3.31	CDP GHG Scope 3	KoSIF (Korea Sustainability Investing Forum)	8	Environment	Scope 3 emissions disclosure	1
4.19~4.20	CDP climate change writing and evaluation methodology	KoSIF	16	Environment	Responding to Scope 3 disclosure and CDP climate change	1
8.6	Global e-commerce carbon reduction strategy cases	Park Ran-hee, CEO of IMPACT ON	2	FOREST CIC, Green Impact, Environment, Agenda Research	Responding to sustainability issues in e-commerce and seeking new business opportunities	30
8.17	E-commerce ESG adoption plan for platform companies	Lee Yang-ho, CEO of Sustainable Lab	2			30
9.7	Eco-friendly packaging cases	Park Ran-hee, CEO of IMPACT ON	2			30
9.21	Waste plastic recycling and energy commercialization strategies	Kwon Seong-an, Research Fellow, Korea Environmental Industry & Technology Institute	2			30
10.5	Climate response direction for sustainable NAVER	Kim So-hee, Secretary General of the Climate Change Center	2			30
10.20	Carbon reduction in e-commerce transportation	Park Ran-hee, CEO of IMPACT ON	2			30
10.24~10.28	RCA ISO 14001:2015 lead auditor course		40	Space Care, Environment	Responding to ISO14001	2
2023. 1.11	Environmental management system training for environmental managers at business sites	Kim Jin-il / Park Se-woong / Jo Seong-yeop	3	Env. Operation TF	Responding to ISO14001	36

Striving to Reduce Carbon Emissions

③ Offset Partnership - Expanding External Partnerships

NAVER intends to expand its eco-friendly ecosystem through collaboration with internal and external stakeholders.

NAVER joined the global environment initiatives in earnest in the second half of 2022, joining forces to tackle climate change and preserve the environment. In August 2022, we joined RE100, a global initiative that aims to cover all electricity used by businesses with renewable energy. Then, in October, we joined EV100, a global initiative aimed at reducing GHG emissions through the transition to eco-friendly vehicles. We also participate in the CDP Climate Change and transparently disclose our climate change risks and carbon information according to the TCFD recommendations.

In December 2022, we signed an MOU with the Korea Water Resources Corporation (K-water), aimed at technical cooperation for implementing the RE100 objective and disseminating ESG values. The agreement was based on the mutual consensus between the two parties on the needs to realize a carbon-neutral society to overcome the current climate crisis.

NAVER will pursue the goal set out by RE100 through its partnership with K-water, the largest holder of renewable energy in Korea. Furthermore, we will spread the value of sustainability sharing K-water's water information, information on disasters and safety, and policy issues related to climate change and carbon neutrality with the public.

NAVER has been taking an active part in engagement activities for institutional support and policy improvement required to enable businesses in Korea to achieve RE100. We participate in the RE100 Enterprise Alliance and submitted policy opinions to help companies stably expand the use of renewable energy. In addition, we are engaged in various forums and meetings.

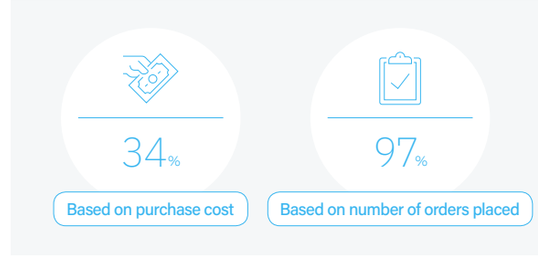
Major Activities Special Logo Project

GHG Scope 3 Calculation and Purchasing Partner (Suppliers) Management

NAVER manages not only direct emissions (Scope 1) and indirect emissions (Scope 2) from within its business sites, but also Scope 3 emissions from external sources such as employees' commute and supply chain. 13 out of 15 Scope 3 categories based on GHG Protocol have been calculated and received third-party verification. For accurate management of Scope 3 data, it is vital to obtain reliable data from purchasing partners (suppliers) in our supply chain. We therefore selected partners in the top 80% of the purchase amount of goods, services, and capital goods and requested data on their GHG emissions.

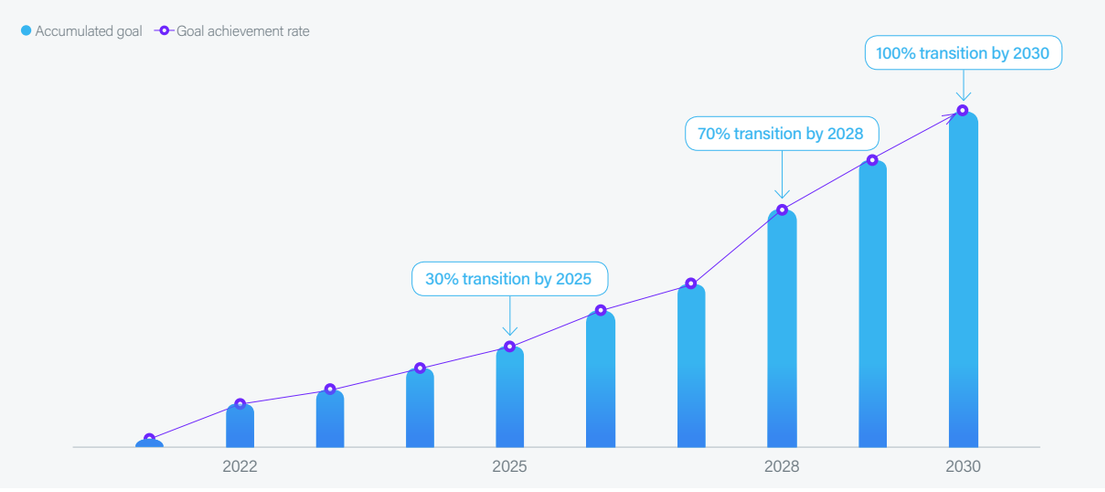
Due to the nature of the IT platform industry, the majority of NAVER supply chain partners are SMEs, and there were many partners who have not yet managed GHG and energy information at their workplace. NAVER is contributing to the spread of ESG management by providing step-by-step programs such as online ESG education, self-assessment, and ESG consulting services for supply chain partners that are having difficulties in implementing ESG management, such as GHG calculation. Moving forward, we will provide various climate change education programs such as GHG inventory management and mitigation measures to our purchasing partners in an effort to support their emission management and reduction efforts.

Percentage of Green Product Purchasing in 2022

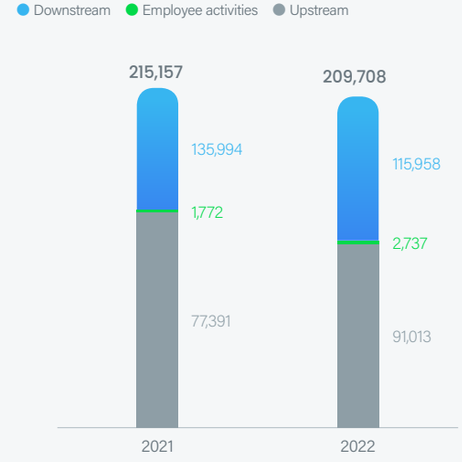


* Green product purchasing standards: whether the Sustainable Management Agreement was made

EV100 Promotion Roadmap



Scope 3 Emissions



(Unit: tCO_2e)

	Classification		2022
Scope3	Total		209,708
	Upstream	1. Purchased goods and services	83,826
		2. Capital goods	
		3. Fuel- and energy-related activities	7,137
		4. Upstream transportation and distribution	10
		5. Waste generated in operations	249
		6. Business travel	453
		7. Employee commuting	2,035
		8. Upstream leased assets	40
	Downstream	9. Downstream transportation and distribution	2
		11. Use of sold products	11,392
		12. End-of-life treatment of sold products	131
		13. Downstream leased assets	424
		15. Investments	104,009

Creating Eco-friendly Workplace and Business Sites

NAVER makes ceaseless efforts to ensure that its new office building "1784" and its second data center "GAK Sejong" present a healthy environment and a standard for future industries for generations to come. We are striving to convey eco-friendly values by minimizing negative environmental impacts not only in the construction phase but also in operations.

DATA CENTER "GAK SEJONG"

"GAK Sejong" is NAVER's second IDC that represents our promise to deliver technological stability and efficiency as well as nature conservation. GAK Sejong is a significant expansion compared to our first IDC "GAK Chuncheon." With a total area of 293,697 square meters, it will be more than six times larger, capable of accommodating over 100,000 servers. This state-of-the-art facility is currently under construction and will be equipped with an advanced management system utilizing brainless robots.

Scheduled for completion in 2023, GAK Sejong has been meticulously developed with a focus on enhancing energy efficiency and harmonizing with the surrounding environment, starting from site selection. When choosing a location, we excluded sites with a history of land damage, such as reclaimed land and landfill sites, and also avoided changing the purpose of land use. We also purchased undeveloped land and set the limit to only essential range, in our earnest efforts toward minimizing forest damage and restoring vegetation. By applying a hybrid cooling system developed to maximize the use of natural outdoor air, compared to GAK Chuncheon, we are aiming to achieve higher PUE by improving cooling energy efficiency by up to 20%. In addition, we plan to save the energy to cool off the heat from the data center by improving mechanical infrastructure facilities, including late-night electric power, freezer, and cooling tower, and by applying new technologies. By optimizing cooling system arrangement, we will enhance electric power efficiency and also strengthen stability of heating, ventilating, and air conditioning equipment.

GAK Sejong will produce annually 300 MWh of renewable energy through solar power panels on the rooftop while using a geothermal system as a heat source for cooling and heating. In particular, waste heat recovered from the server room is used to supply hot water to the building while also being used for floor heating of the indoor space of the operation building. It is also designed to achieve higher energy efficiency based on the know-how accumulated through GAK Chuncheon operation, such as applying a snow melting[1] system to the inner ring road. In addition, we have established an ecological preservation archive to ensure that we do not miss out on the conservation of ecological diversity at the business site. We plan to develop this into NAVER's company-wide policy in the future.

[1] Snow melting: A road heating system which uses waste heat in the wintertime

DATA CENTER "GAK CHUNCHEON"

NAVER's first IDC, "GAK Chuncheon," opened in June 2013 and is located at the foot of Mt. Gubong overlooking Chuncheon City in Gangwon Province. It is the largest data center situated outside the metropolitan area, capable of accommodating 100,000 servers, the size of seven football fields (total floor area: 46,850 square meters). It plays a pivotal role in helping NAVER provide uninterrupted internet services to domestic and foreign users. GAK Chuncheon is the first in the world to obtain the world's highest level of 'Platinum' certification as a data center in LEED[2] New Construction (NC) 2009, an international eco-friendly building certification system. It is considered a worldwide leader in terms of ESG management.

GAK Chuncheon, an aggregation of eco-friendly data center technologies, aims to operate while minimizing the consumption of various energy. For example, cooling of the server room is made possible by utilizing the natural wind of Chuncheon, which is 2-3℃ lower than the metropolitan area. NAVER is maximizing the energy saving effect of GAK Chuncheon by developing an AMU (Air Misting Unit) and a NAMU (NAVER Air Membrane Unit), which are eco-friendly technologies that lower the temperature of server rooms using cold air. Accordingly, it continuously maintains a PUE[3] that is closest to 1 among domestic data centers.

We do not dispose of the waste heat from the server room outside but collect it in the waste heat recovery system in server pipes and use it to operate the snow melting system through special pipes installed under the road, which prevents large trucks carrying servers from losing control in the winter months. Additionally, we store rainwater in rainwater tanks and reuse it as landscaping and firefighting water and operate photovoltaic power generation facilities to save 200MWh of electricity annually. In 2022, GAK Chuncheon reduced GHG emissions by 14,989 tCO_2e by generating electricity from solar energy and using the natural air conditioning system.

[2] LEED: Leadership in Energy and Environmental Design, Environmentally-friendly building certification developed by the US Green Building

[3] PUE: Power Usage Effectiveness, the ratio of total amount of energy consumption of a data center facility to the energy consumed by IT equipment, it is generally used as a measure of the efficiency of data centers. An ideal PUE is 1.0.

Due to these efforts and technologies, GAK Chuncheon received multiple recognitions, including the Climate Week 2016 Minister's Citation in 2016, the Energy Champion Award in 2017, and the Grand Leaders Award from the Climate Change Center in 2018. In recognition of its technological innovation for energy saving, it received the Social Value Creation Merit Award from the Korea Energy Agency.

Creating Eco-friendly Workplace and Business Sites

NAVER'S 2ND OFFICE BUILDING "1784"

Completed in 2021 with NAVER's unique eco-friendly philosophy, "1784" is NAVER's second office building that has achieved LEED Platinum certification, the highest rating. The 1784 project applied various energy-saving technologies, including a radiant cooling system, chilled water thermal energy storage system, and high-efficiency lighting system, to result in a 38.1% reduction in expected annual energy costs compared to the ASHRAE standard building model[1].

In particular, the cooling system uses the most effective radiation method among heat transfer methods, which enables the system's annual energy consumption reduction effects to reach 12.67% compared to the ASHRAE standard building model. In addition, through water-saving plumbing fixtures and heavy water processing system, we achieved a 38% reduction in expected annual water use. In addition, construction wastes in the construction phase were 98% recycled, and the use of recycled materials and local materials stood at around 38% of the total construction materials used.

Although 1784 is an urban high-rise building, solar power generation facilities are installed on the rooftop to produce 186 MWh of renewable energy annually. It also has built a geothermal system up to 240-meter underground to save energy consumption for heating and cooling, while also maximizing the use of renewable energy. The building maximizes the use of renewable energy through self-generating facilities such as solar power generation and geothermal heat while striving to convert to renewable energy through PPA for energy consumption. Moreover, uses multi-use cups in the in-house cafe to reduce waste in the building and increasing the recycling rate by installing an AI recycling bin "Nephron". As a result, 1784 is the world's first robot-friendly building, and it is further establishing itself as a sustainable futuristic green space.

[1] ASHRAE standard building model (Baseline#model): A virtual model that applies general energy-related system and equipment specs presented by ASHRAE 90.1 to a building that is identical to the 1784 project. In other words, a virtual model that results from generally designing the 1784 project without considering reduction of energy consumption.

SENSITIVITY OF WATER RESOURCES IN INTAKE AREAS

NAVER is aware of the importance of water resources, which play a crucial role for its business operations, including data center cooling and other essential processes. We therefore use the analysis results of WRI[1] and WWF[2] to manage the impact of water use on the sensitivity of local communities to water resources. NAVER's business sites are located in Seongnam-si in Gyeonggi-do (Green Factory and 1784), Sejong Special Self-governing City (IDC GAK Sejong), and Chuncheon-si in Gangwon-do (IDC GAK Chuncheon and Connect One), the level of water resource sensitivity in all business locations have been recognized as low. NAVER is striving to conserve water resources by introducing various water recycling systems to its business sites such as water-saving sanitary appliances and greywater treatment systems.

1784 is recycling both rainwater and greywater by applying a greywater treatment system to the podium and lower floors, while also using water-saving sanitary appliances, which has enabled us to reduce annual water consumption by 38% compared to the LEED Baseline. In addition, ConnectOne, a training center for NAVER employees, collects rainwater from the roof and uses it to irrigate plants and recycles greywater in toilets, resulting in water recycling rate reaching 16%.

[1] Results of the global water resource sensitivity analysis presented by the World Resources Institution

[2] Results of the global water resource sensitivity analysis presented by the World Wide Fund for Nature

	Water resource sensitivity level				
[WRI] Water Risk Atlas	Low	Low-Medium	Medium- High	High	Extremely High
	0-1	1-2	2-3	3-4	4-5
NAVER business sites (Seongnam, Sejong, Chuncheon)		√			
[WWF] Water Risk Filter	Very Low Risk	Low Risk	Medium Risk	High Risk	Very High Risk
	1.0-1.8	1.8-2.6	2.6-3.4	3.4-4.2	4.2-5.0
NAVER business sites (Seongnam, Sejong, Chuncheon)			√		

Eco-friendly building certification

LEED Platinum for New Construction (NC)

- 2013 **Data Center GAK Chuncheon** — The first data center to receive LEED Platinum certification
- 2014 **Green Factory** — Received the world's highest score for buildings
- 2014 **Connect One**
- 2021 **1784**
- 2023 **Data Center GAK Sejong** — Planning to achieve LEED Platinum

65 tCO_2e

Carbon reduction amount due to the charging amount of EV charging facilities at 1784

8 tCO_2e

Carbon reduction amount due to the use of reusable cups at 1784

Creating Eco-friendly Workplace and Business Sites

CASE STORY

Office waste reduction case at 1784

Only when the daily life of NAVER employees working at 1784 is eco-friendly, can 1784 be an eco-friendly building in its true sense. Therefore, we have been exploring eco-friendly practices that can take place immediately, which has been followed by our efforts to reduce waste generated in the office.

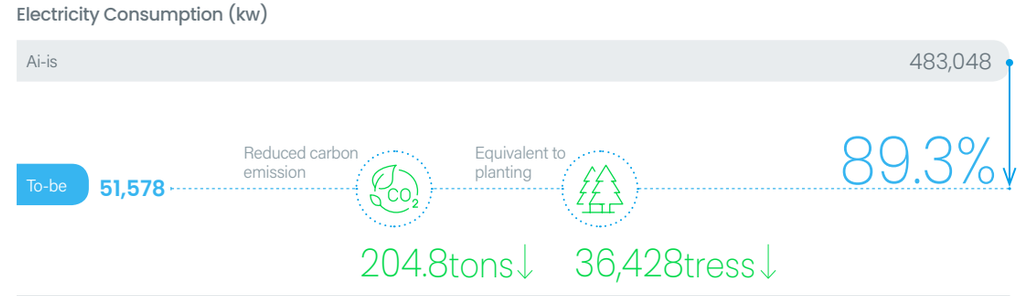
The wastes disposed most at 1784 were disposable cups used in cafes, PET bottles, and aluminum can, in order. In response, NAVER replaced disposable cups at the in-house cafe with multi-use cups. Furthermore, the company works with Trash Busters, a multi-use container-rental startup, to collect, wash, and reuse the multi-use cups. For PET bottles and aluminum cans, which account for the 2nd and 3rd largest waste discharge, we have introduced an AI trash bin that automatically classifies waste into PET, can, and milk cartons in cooperation with SuperBin, a startup for environmental technology, which has enabled us to collect approximately 80,000 pieces of waste. The collected recycled waste will be reproduced and used as building materials, t-shirts, and bags. Through Happybean, savings generated from collecting recyclables are scheduled to be donated to various environmental organizations.

Contributing to carbon neutrality through cloud transformation

NAVER produces 80,000 to 90,000 tons of GHGs every year. To reduce this amount, we carry out a variety of energy-saving activities such as introducing renewable energy as well as improving energy efficiency in data centers and office buildings. In particular, from a long-term perspective,we constantly explore ways to reduce our GHG emissions directly, aside from internal reduction activities and other traditional means to reduce emissions.

As part of these activities, NAVER Cloud is converting existing IT equipment (on-premise environment) to cloud servers, thereby contributing to achieving carbon neutrality. In April 2023, 137 physical servers of the information system of Sejong City and affiliated agencies were converted to NAVER Cloud server. As a result, power used to operate physical servers has been reduced by approximately 89.3%. This innovative performance obtained through cloud conversion reduces 204.8 tons of carbon per year, which is equivalent to planting about 36,428 trees every year.

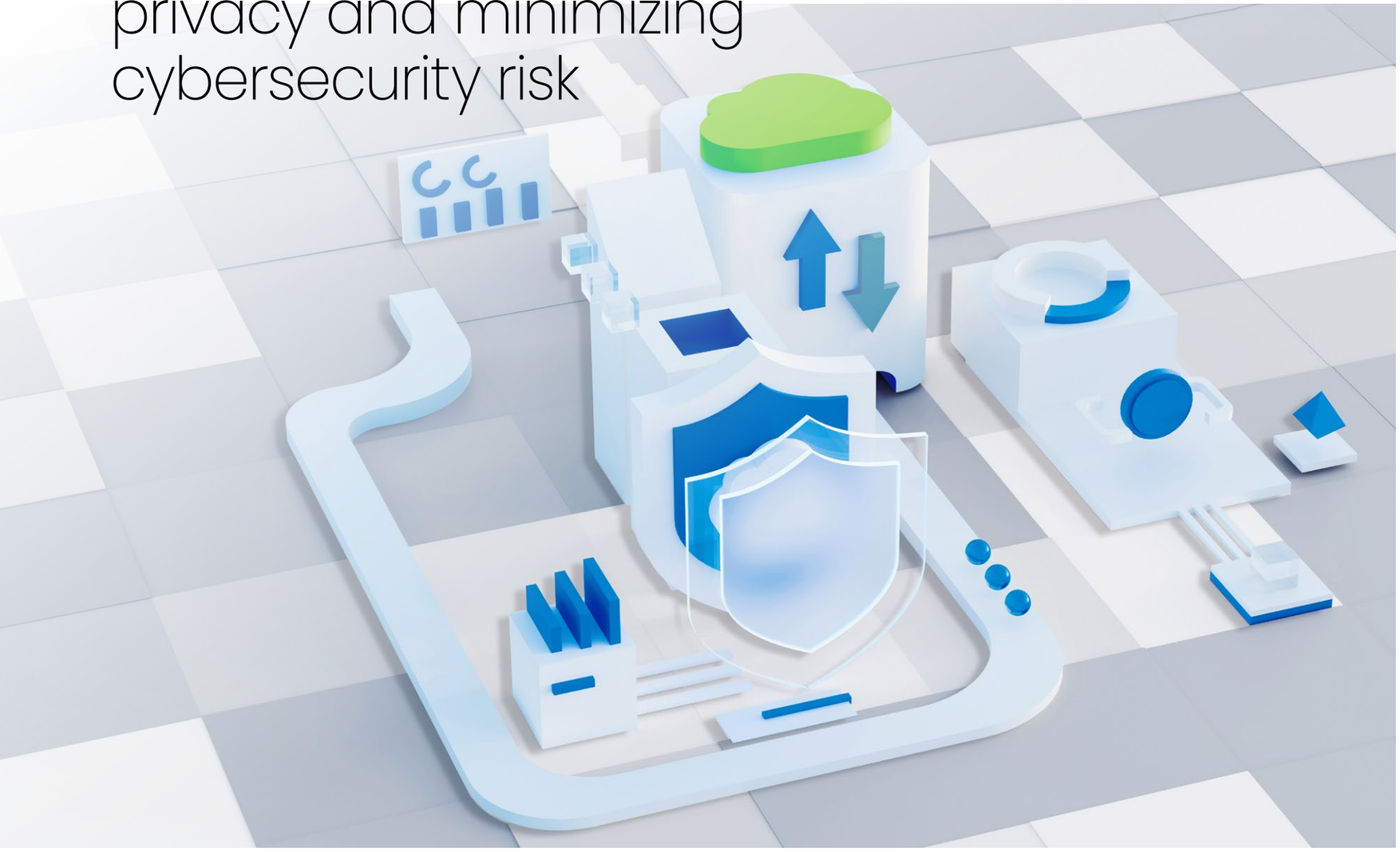
	Before transition			After transition	
	No. of physical servers	No. of virtualization and partition	Power consumption (kw)	Number of virtual machines	Power consumption (kw)
Urban Integrated Information Center	61	0	213,744	70	19,622
Sejong City Transportation Corporation	24	0	84,096	22	6,167
Sejong Facilities Management Corporation	12	0	42,048	23	6,447
Information Integration Center	40	0	140,160	69	19,342
Total	137	0	483,048	184	51,578



Annual power consumption decreased by 431,470 kwh from 483,048 kwh before cloud transition to 51,578 kwh after the transition, saving 89.3% compared to the on-premise environment

ESG COMMITMENT 6

Expanding the right to privacy and minimizing cybersecurity risk



2022 KEY HIGHLIGHTS

Acquired APEC CBPR certification for the first time in Korea

Cross-Border Privacy Rules (CBPR) certification

Increased the total compensation amount of the PER by 176% compared to 2021

Privacy Enhancement Reward (PER) system

Conducted 3 campaigns in the year for the protection of personal information of SMEs' customers

Personal information protection campaigns for SMEs

Established a "Threat Intelligence System" to detect leakage of NAVER user accounts and phishing data

Establishment of the Threat Intelligence System

Minimizing Cyber Risk Exposures

Protecting personal information and ensuring cyber security are key focal points for operating stable services and protecting their users. NAVER improves its data protection system on a continuous basis and actively discloses the related content in order to provide services that meet the expectations of both regulatory authorities and users, thereby striving to secure transparent and inclusive "personal information protection for everyone." In addition, we make a wider range of efforts to inspect, diagnose, prevent, and respond to security issues as a way to build safe online environment.

MANAGEMENT APPROACH

The rapid development of ICT technology has contributed to increasing importance of personal information protection and cyber security, and the related regulations and discussions have been steadily progressed. The second amendment to the Personal Information Protection Act is expected to be passed by the National Assembly in 2023, and the "principles for protecting personal information of children and adolescents" and the related guidelines, set forth by the related government departments, provide guidance for children and adolescents on how to exercise their personal information protection rights easily and receive protection from infringements of their rights. NAVER is making significant efforts to respond proactively to such external environmental changes while spearheading the appropriate management and thorough protection of personal information by achieving visible results in the process, such as becoming the first in Korea to acquire the Cross-Border Privacy Rules (CBPR), jointly developed by APEC member countries. We also have established and are operating a systematic monitoring system to prevent information leakage in addition to preventing, detecting, analyzing, and responding attack attempts from the outside. Going forward, we plan to actively utilize advanced phishing detection technology, Safe Browsing, and Darkweb monitoring to minimize user inconvenience from security threats.

OUR KEY PERFORMANCE INDICATORS (KPI)

Reinforcing information control and accessibility to expand user rights guarantee

- Establish a web tool that enables to check the children's service use status and personal information registered by children

Sharing NAVER's security solutions as an open source tool

- Share in-house security solutions with the public, improving security of IT ecosystem
- Implement at least 3 cases of coverage expansion and functional advancement of Naver's security solutions

Information Security & Privacy Protection Management System

In the era of data economy, companies must fulfill their responsibility to protect information in order to protect users and provide safe services. NAVER respects its users' rights to self-determination concerning their personal information, and is making every effort to raise the level of information security and strengthen the cyber safety net. To this end, we put in place solid data protection management system aimed at stable service operation and protection of our users' data and privacy.

INFORMATION PROTECTION POLICY

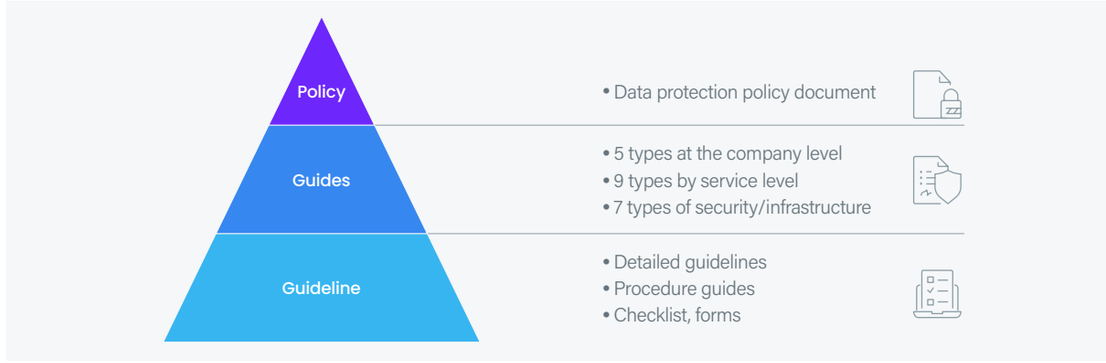
As the trend toward strengthening the legislation on personal information protection spreads globally, the importance of compliance in the field of information security and privacy is becoming increasingly important. In Korea, following the enforcement of the revised Personal Information Protection Act in 2020, the second amendment to the Personal Information Protection Act, which could have a significant impact on information subjects and industries, was submitted to the National Assembly in 2021. In China, a new Personal Information Protection Law was enacted in November 2021, while in the United Kingdom an age-appropriate design code for protecting the privacy of children and adolescents is being enforced. Meanwhile, in the United States, a Children's Online Privacy Protection Act (COPPA) amendment bill has been introduced.

NAVER is responding preemptively to such changes. With the strong support and commitment of the management to the issue, NAVER established its Information Security Policy Document to ensure the confidentiality, integrity, and availability of its information assets. Furthermore, it operates a policy system consisting of detailed instructions and guidelines in accordance with it. NAVER also established the NAVER's Principles on Personal Information Protection that best suits our working environment and culture to ensure stable service operation and protect users' personal information and privacy.

NAVER is taking a "Let's Shift Left" security strategy to address increasingly intelligent and sophisticated security threats. This involves minimizing security vulnerabilities from the service planning, design, and development stages. Any identified security vulnerabilities are swiftly addressed through the Bug Bounty program, ensuring that users can trust and safely utilize NAVER services.

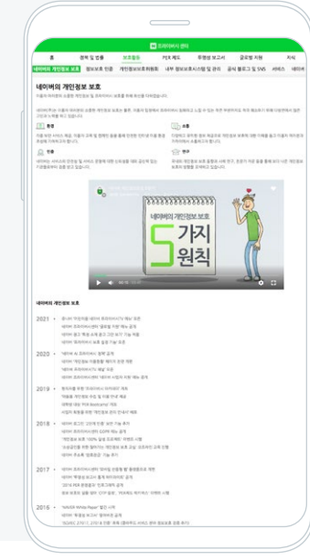
In principle, NAVER applies the same information security policy system to itself and all companies under contractual relationships including the affiliated companies and subsidiaries. However, if a related company requires a different information security policy due to a specific business environment, NAVER consults with the department in charge of NAVER's information protection policy, and then applies that company's detailed information security instructions and guidelines more strictly within the basic policy stipulated in NAVER's information protection policy. In addition, we verify the reliability of our service stability and operating systems on a regular basis by acquiring reputable information security certifications at home and abroad. NAVER also adheres to the principle of 24/7 seamless security based on internal vulnerability diagnoses, failure management, simulated hacking tests, and security control system.

NAVER Data Protection Policy System



NAVER's Principles on Personal Information Protection

1. NAVER complies with all laws and international standards related to personal information protection.
2. NAVER transparently discloses processing of user's personal information at all times.
3. NAVER respects user's exercise of the right of self-determination regarding personal information.
4. NAVER collects minimum data in accordance with the purpose and responsibly manages personal information.
5. NAVER considers user privacy protection with top priority.



Information Security & Privacy Protection Management System

MANAGEMENT AND SUPERVISION OF DATA PROTECTION

At NAVER, the Chief Privacy Officer (CPO), occupied by a registered executive, also serves as the Chief Information Security Officer (CISO) to manage corporate-wide personal information protection risks[1]. In order to comply with the laws and regulations, we are preparing and expanding the scope of our "Global Privacy Compliance" regulations to the global level. In addition, information protection risks are managed at the highest level of governance, the BOD and management, and the Risk Management Committee has been formed within the BOD. Supported by RM Support, an organization that supports company-wide risk management, the Committee identifies information security issues and discusses possible responses.

[1] The Act on Promotion of Information and Communications Network Utilization and Information Protection was amended in June 2021 to allow a CISO to also perform information protection-related tasks similar to those of a privacy officer.

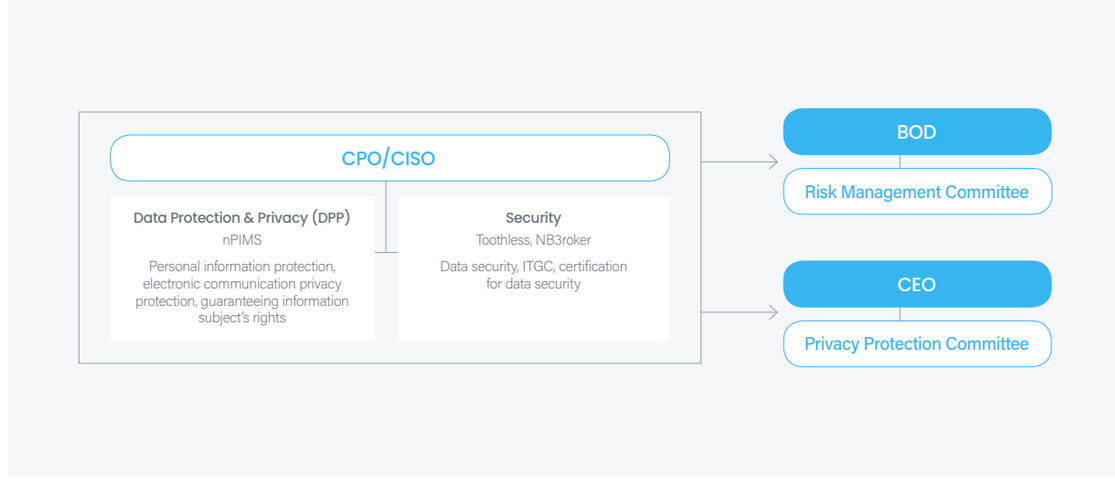
The Risk Management Committee under the BOD directly involves the CPO/CISO in receiving reports on data and personal information protection and discussing related agenda. The CPO/CISO reports to the BOD the results of work done previously discussed by the committee. In 2022, the Risk Management Committee received four reports either directly from the CPO/CISO or through the Risk Management Working Group depending on the nature of matters.

Furthermore, NAVER manages company-wide data information risks through the Privacy Protection Committee consisted of key executives; and has been researching privacy issues since 2007 through the NAVER Personal Information Protection Committee, composed of leaders from academic and legal circles in the field of personal information protection, in a bid to effectively respond to users' increasing demand for privacy resulting from business expansions of NAVER. The 8th NAVER Personal Information Protection Committee, launched in April 2021, is strengthening its basic research of online personal information protection, bolstering its advisory role in data protection and policy matters, and from a wider perspective, reviewing privacy policies applicable to NAVER services either launched or updated, all in a bid to proactively provide solutions and policy suggestions.

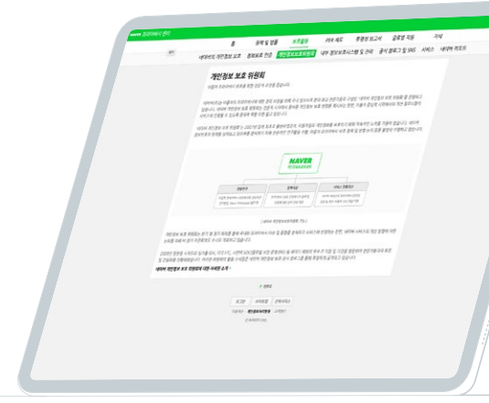
Major Activities of NAVER CISO/CPO

(Currently) NAVER CISO/CPO (Unregistered executive)	CISO's Major Activities	• Vice Chairman, Korea Council of Chief Information Security Officers
	CPO's Major Activities	• Member of the Financial Data Forum, Korea Credit Information Service • Member of the Intelligent Data Law System Forum, Korea Intelligent Information Society Agency • Member of the Policy Research Review Committee, Personal Information Protection Commission • Corporate Research Director, Korea Personal Information Protection Law Association • Member of the Personal Information Technology Forum, Personal Information Protection Commission • Member of the Public Data Provision Dispute Mediation Committee, Ministry of Public Administration and Security

NAVER Data Protection Management System



NAVER Personal Information Protection Committee



Information Security & Privacy Protection Activities

NAVER conducts regular inspection, vulnerability diagnosis, and monitoring aimed for personal information protection and data security, while also proactively responding to security threats through intrusion prevention system. In addition, we thoroughly manage security threats all across the areas ranging from service development to provision in an effort to maintain and further enhance our data protection level.

PERSONAL INFORMATION PROTECTION ACTIVITIES

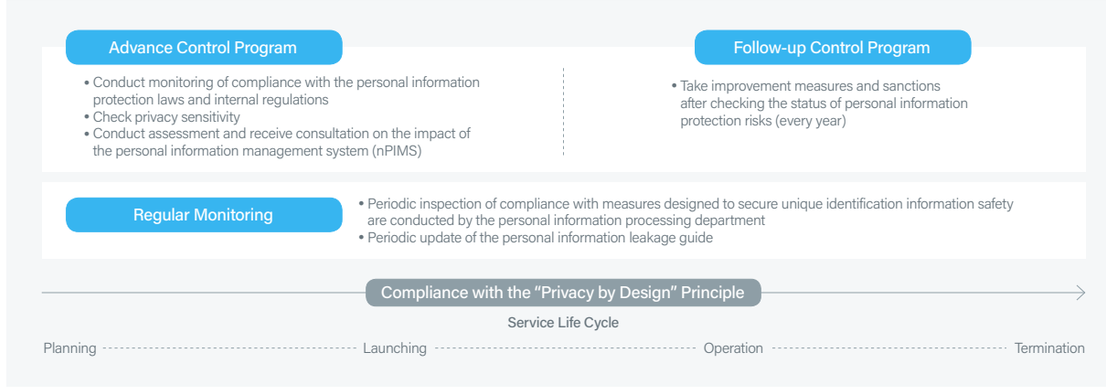
As the nation's largest search engine and a provider of various content services and platforms, NAVER strictly applies the "privacy by design" principle for user's personal information protection as a way of protecting the privacy and data of users throughout the entire lifecycle of our services, ranging from service planning to service closing. As an advance control program, we implement the Privacy Impact Assessment (PIA), to check whether we are complying with relevant laws and internal regulations, identify the user privacy sensitivity, and manage risks as well as nPIMS for constant advice.

As a follow-up control program, we conduct an annual assessment of the integrity of service privacy protection, location-based services, mobile app privacy, and personal information partners (trusted companies processing personal information on behalf of NAVER) as part of our effort to minimize data protection risks. In particular, we inspect the handlers of outsourced personal data using the 40 inspection items we have set up in accordance with the Personal Information Protection Act. The inspection then classifies data protection levels into three categories, high/medium/low, depending on the severity of the risks; if data protection level is low, it is considered a violation and thus receives penalty points.

Inspection results are reviewed and confirmed by NAVER's CPO, and improvement measures are advised in accordance with the performance level of the handlers. Those whose personal data protection level is evaluated to be low or who have continuously failed to implement improvement measures are urged to improve the level of their personal data protection through measures such as a contract termination or other appropriate sanctions.

In addition, we conduct a separate "inspection of the status of compliance with measures to ensure the safety of uniquely identifiable information" including the regular "inspection of personal information protection status of HR department and finance department" and other departments that process unique identification information such as resident registration numbers. The status inspection includes inspection and improvement activities regarding the violation of the privacy of the data subject which can be human rights risk. We have established the Personal Data Leakage Response Guide to improve our response procedures and existing personal data management system as well as to respond to potential personal data leakages more effectively.

NAVER's Personal Information Protection System



MANAGEMENT STANDARDS FOR THE PERSONAL INFORMATION PROCESSING SYSTEM

Among the systems necessary for service operation, NAVER classifies systematically-structured service operation systems and database systems that enable personal information processing as "personal information processing systems". Access to the systems is controlled according to the access authority management standards and procedures, systematic authentication procedures, and access log management as follows:

- Users must use secure authentication method recommended by the company and enter account and password in order to access service management tools, including a personal information processing system. The authentication process is encrypted so that third parties cannot access, and outsiders who need access can only do so through a separate authentication process.
- Various authorization groups are created according to the accessible menu to manage the rights to access operating system, which can only be applied through the approval of the authority application, while unnecessary authority is retracted through a regular/frequent review of authority.
- NAVER keeps a log of creation/change/deletion of privileges, access logs, and personal-information-handling logs for a set period of time to prepare for security incidents through periodic inspections or to track security incidents. Logs in the service management tool are protected by applying physical and technical measures such as access control and separate backup.

Information on NAVER's Customized Ads
2022 NAVER Privacy Report

Information Security & Privacy Protection Activities

SERVICE SECURITY RISK MANAGEMENT

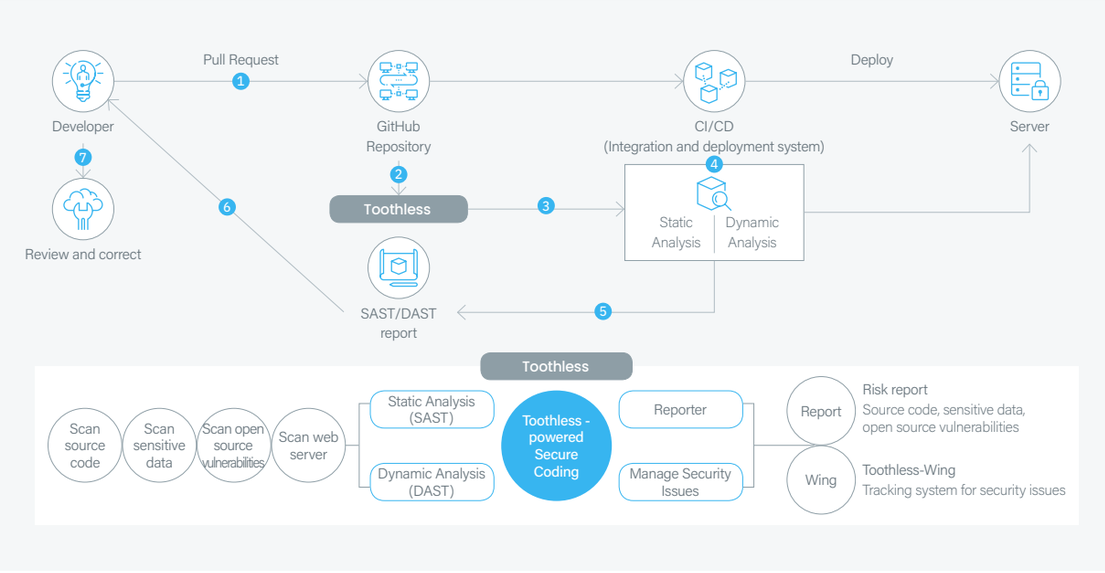
In managing service security, NAVER strives to apply the "Security by Design" and "Usable Security" principles to all our service areas. We have set in place a security review process for service planning and designing, and operate a DevSecOps (Development, Security, Operations) support system that we have developed based on an open-source repository, which minimizes developer interventions in outputs that are being developed while enabling an automatic code security review.

Even the most effective planning, design, and development cannot ensure 100% prevention of security bugs. We have therefore developed and operate our own "security bug bounty program" that can identify and deal with security bugs that we are not aware of before an accident occurs, with the help of an external analyst.

The program is evaluated as the most outstanding case among companies in Korea. In 2022, 136 people participated in NAVER Bug Bounty, and 138 cases were reported, leading to a total of KRW 91 million in rewards.

In 2018, NAVER was registered as a CVE Numbering Authority (CNA) with the authority to issue vulnerabilities of its software under the international standard management number, Common Vulnerabilities and Exposures (CVE). We have issued a total of 19 CVE numbers since participating in CNA, including seven issued in 2022, which has enabled us to be positioned as a transparent company that can systematically manage and quickly respond to security vulnerabilities.

NAVER DevSecOps: Toothless



Security Improvements

Classification		2018	2019	2020	2021	2022
No. of areas of improvement for security that were discovered	Cases	1,128	1,344	1,158	1,062	1,082
Percentage of mitigation[1]	%	99.82	95.38	88.25	91.62	95.01
Unhandled[2]	Cases	2	62	136	89	54
Mitigation within the given deadline	Cases	728	744	694	650	732
Mitigation after the given deadline	Cases	370	513	293	270	257
Mitigation with no specific deadline	Cases	28	25	35	53	40

[1] Status of improvement as of June 2023 about security issues identified in 2022
[2] Number of unhandled cases as of the first quarter of each year

Bug Bounty

Classification		2018	2019	2020	2021	2022
No. of reported bugs	Bugs	208	533	314	291	138
No. of persons who made a report	Persons	31	129	154	166	136
Reward	KRW 10,000	4,425	11,900	8,089	11,553	9,149

Named Common Vulnerabilities and Exposures (CVE)

Classification		2018	2019	2020	2021	2022
No. of cases of named CVE	Cases	4	2	3	3	7

NAVER Bug Bounty Program

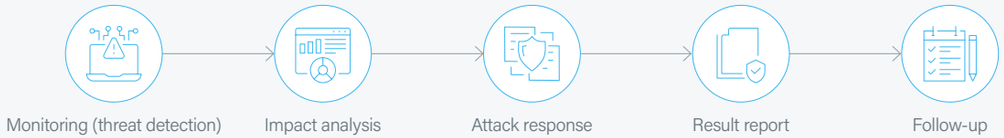
Information Security & Privacy Protection Activities

RESPONSE TO CYBER INTRUSION

NAVER operates a cyber intrusion response process to provide safe and reliable services by preventing, detecting, analyzing, and responding to attacks from outside such as hacking, DDoS, and cyber infringement. Based on NAVER's monitoring policy, correlation rules, and threat management response system – which have proven effective for many years - our professional personnel perform security control 24/7. When detecting an attack, we judge the degree of impact and respond to the attack according to the degree of impact. Based on the outcome of our response, taking into account the type of attack and the severity of the impact, we take follow-up measures to ensure that it does not recur down the road.

NAVER also conducts simulation drills for APT, server hacking, and DDoS response in cooperation with external organizations at least once a year. In the last three years, we have completed 100% of the detection and response to all types of attacks (mock training is scheduled for October 2023).

Cyber Intrusion Response Process



Types of Drills

APT (Advanced Persistent Threat)
Send socially engineered malicious emails to employees and train them to detect/respond to them

Server Hacking
Conduct server vulnerability attack detection/response training

DDoS (Distributed Denial of Service)
Send a large amount of malicious traffic to the homepage or server and conduct the detection/response training

Types of Attacks

Type	Description
Scanning	Actions to identify the target of the attack on the network
Malware	Attempts to infect servers or PCs with malware in a variety of ways
Vulnerability attack	Attempts to steal PC/server permissions by taking advantage of known vulnerabilities or 0-day vulnerabilities
DDoS	An attack that uses multiple servers, PCs, etc. to cause abnormal traffic and paralyze the target system

Severity Rating

Type	Description
Normal	When hacking techniques and security vulnerabilities have been discovered but the damage is insignificant and cyber economic and social activities are normal
Interest	Increasing attack attempts such as vulnerabilities, DDoS, and malware
Caution	Increasing possibility of damage following the advent of new hacking techniques such as high-risk vulnerabilities, DDoS, and malware
Alert	When a cyber-attack such as a vulnerability or DDoS causes a significant impact on the service
Serious	When a cyber-attack destroys, damages, or leaks important information or intellectual property rights, causing a significant impact on the service

Building a Culture of Data Protection

NAVER implements a variety of information protection activities of users and partners and creates a safe Internet ecosystem culture by communicating transparently on data security. Accordingly, we are engaged in a variety of efforts such as privacy enhancement rewards (PER), NAVER phishing prevention campaigns, and capability building programs for partners. NAVER also discloses these the outcomes of activities through the Privacy Center.

Transparency Report

MAXIMIZING THE USER'S RIGHT TO SELF-CONTROL PERSONAL INFORMATION

Through its privacy policy, NAVER provides information on the rights of users and legal representatives related to data protection and how to exercise them. Users can view, modify, delete, and request access to their personal information at any time through the "Member Information" page. They can also request to stop the processing of their personal information, unless specified otherwise by law. They may withdraw their consent to the collection and use of their personal information at any time via membership withdrawal. In the case of children below age 14, their legal representatives have the right to ask for an amendment or deletion of the children's personal information or to withdraw their consent to its collection and use.

When we have to provide a third party with the personal information of our users to enable them to use the party's services, NAVER obtains the users' consent to the provision of their personal information to the party in accordance with the Personal Information Protection Act. NAVER notifies users in advance to whom the personal information is to be provided, the purpose of the provision and the items of personal information to be provided; and, prior to any information transfer, it obtains an explicit, individual consent from relevant users. Accordingly, there may be cases in which users' personal information is provided to a third party to enable users to access the affiliated services while using NAVER services, but we never provide or lend their personal information to a third party for financial gains.

As one of its data protection principles, NAVER respects users' right to personal information self-determination as specified in the Constitution, making diverse efforts to guarantee this right. Since 2013, for the first time in Korea, we have started providing the history of collection and use of personal information as well as information provision to a third party, which occur when using NAVER's services, with the consent of the person through the "Status of Personal Information Usage" page tailored to users' particular behavior. In July 2020, we began to also disclose the date of the consent the user granted to collection and provision of personal information to a third party, and reorganized the personal information usage status page so that users can easily withdraw their consent to the collection and provision of personal information to a third party within all services of NAVER, providing a one-stop process for users to control their personal information. All data is deleted when users withdraw their consent tothe collection and use of their personal information. Also, once they withdraw their consent to providing personal information to a third party, their personal information is no longer provided to the party.

NAVER stores collected personal information only during the period consented by the user, whereupon the information is destroyed, unless the retention period is specified by other laws and regulations. When receiving personal information from a third party, we only receive information to the extent the data subject has consented to share. In accordance with the Personal Information Protection Act, we issue a "notice of the source of personal information collection" to the data subject. The notice, including the source of collection, purpose of processing, and the right to request suspension, is issued to the data subject within three months of the date of information receipt.

Moreover, regarding customized advertising that uses behavior information, we disclose operational principles on collecting, retaining, and destroying information as well as users' exercise of the right to control and damage relief methods through the "Information on NAVER's Customized Ads" page. Across the globe, the enactment of laws concerning privacy protection such as the EU GDPR and US CCPA demonstrates that the demand for user privacy-related rights is growing in importance. In turn, NAVER will continue our preemptive efforts to protect users' right to control their own information to the global level.

NAVER is committed to "Privacy as a Service (PaaS)" and always seeks for better ways to communicate its privacy protection efforts. In 2013, we became the first in Korea to open a Privacy Center that discloses our "personal information protection principles" that are applied to overall NAVER services and our service operation policies. We also publish Transparency Report twice a year to regularly and transparently disclose the statistics of personal information provided to investigative agencies in accordance with relevant laws. Moreover, we publish Personal Data Protection Report and NAVER Privacy White Paper detailing in-depth research on privacy protection, thereby facilitating social discussions and agreements. In addition, our Privacy Center's Global Support menu provides privacy-related international guidelines and laws including U.S.'s and Japan's. NAVER's official blogs, social media, and Privacy TV Channel are also the platform to share and discuss personal information issues with our users.

NAVER's Data Protection Milestones

2006
- Received international ISO/IEC 27001 certification for the company-wide information system management system (the world's first to specialize in the personal information protection area)

2010
- Received ISMS certification for the company-wide information protection management system (including all our subsidiaries and affiliates for the first time in Korea)

2011
- Received PIMS certification for the company-wide personal information protection management system (the first PIMS certification in South Korea)

2013
- Became the first in South Korea to simultaneously receive SOC (Service Organization Control) 2 and 3 certification
- Opened the NAVER Privacy Center
- Began to publish the annual Personal Data Protection Report

2015
- Became the first in Korea to disclose the Transparency Report; and disclosed an external verification report on the protection of communications secrets

2016
- Obtained ISO/IEC 27017 and 27018 certifications (including data protection verification in the cloud service area)
- Began to publish the NAVER White Paper
- Added the "non-disclosure other than the writer" function for the Knowledge-iN service

2018
- Earned CVE Numbering Authority (CNA) qualification, proving that we strictly manage security vulnerabilities of our applications to meet global standards
- Added the "two-step certification" security function to NAVER log-in; and disclosed a GDPR information page in the Privacy Center

2019
- Published the "Guidelines on the Collection and Use of Personal Information relating to Children" and the "Guidelines on Safe Personal Information Management for Business Members"
- Commenced independent operation of Bug Bounty – NAVER's security vulnerability report-rewarding program
- Received Personal Information & Information Security Management System (ISMS-P) certification for NAVER services, and Information Security Management System (ISMS) certification for Data Center GAK

2020
- Disclosed the AI speaker privacy policy; applied the nation's first "personal information usage status" opt-out function[1]; and provided online, live personal information protection training to SMEs
- Fully established Toothless, a NAVER DevSecOps platform, for security by design of our own

2021
- Acquired PRIVO certification for processing children's personal information on Band for Kids and Band website
- Opened the "Global Support" menu at the reorganized NAVER Privacy Center along with the "Privacy Protection Settings" service for the address book
- Provided the NAVER Square TV information security training for Smart Store merchants

2022
- Became the first Korean company to acquire the APEC (Asia-Pacific Economic Cooperation) CBPR (Cross-Border Privacy Rules) certification
- Began to provide partner information protection training for NAVER's outsourcing partners

[1] Opt-out function: A method of information processing that stops information collection when a data subject explicitly opposes the collection of his/her personal information

Building a Culture of Data Protection

Transparency Report Statistics

				2019	2020	2021	2022
Status of responding to government agency requests for materials (for investigation purposes)	Seizure warrant[1]	Requested	Cases	7,712	7,248	7,307	7,312
		Processing		6,109	5,269	5,269	5,322
		Provided		318,380	1,304,804	4,036,190	881,478
		Handling rate	%	79	73	72	73
	Communications restriction measure	Requested	Cases	18	6	5	3
		Processing		18	6	5	3
		Provided		82	76	94	72
		Handling rate	%	100	100	100	100
	Communications fact confirmation material	Requested	Cases	4,266	2,506	2,094	1,757
		Processing		3,701	2,083	1,821	1,523
		Provided		8,139	4,793	3,997	3,390
		Handling rate	%	87	83	87	87
	Communications material	Requested	Cases	119	49	33	18
		Processing		-	-	-	-
		Provided		-	-	-	-
		Handling rate	%	0	0	0	0

* The "requested and processing" in the statistics refers to the "number of cases of documents" that NAVER received from investigative agencies and were processed, while "provided" refers to the number of units of user information that were actually provided. As such, a request to provide information on several users can be made through one document.
* NAVER stopped providing communications materials in respect for a court ruling rendered in October 2012 in relation to confirmation of whether a business operator has a substantial examination obligation regarding provision of communications material and concern over violation of the warrant requirement principle.

[1] In terms of seizure warrants, in case of provision of a log record and not user identification information, each log was tallied as one case.

STRENGTHENING USER INFORMATION PROTECTION

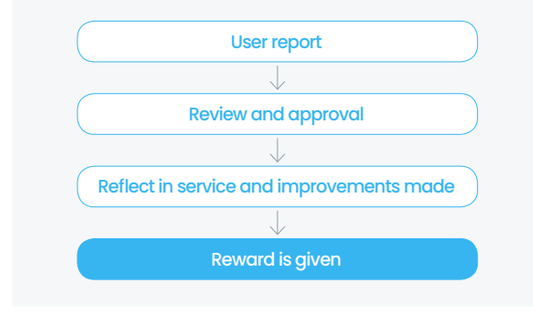
User Privacy Enhancement Reward (PER)

In 2016, NAVER became the first company in Korea to developed the Privacy Enhancement Reward (PER), the first privacy enhancement compensation system, aimed at protecting users' personal information and privacy, which was followed by the opening of the NAVER Privacy Center in November 2022 to further enhance user information protection. PER is a concept that is very similar to Bug Bounty which receives reports on technological security-related vulnerabilities and provides rewards. PER is however distinctive as it consists of reporting legal/institutional violations in relation to service operation; suggesting service operation and functionality improvements; and recommending required services. Any user can directly present opinions on NAVER's services, and a prescribed reward is provided according to the respective opinion's suitability, practicality, and level of contribution. As the new PER system offers improved user convenience and accessibility, users can view the PER application history and processing stages in real time, including the progress of applications, the total number of applications and compensation, at a glance.

PER (Privacy Enhancement Reward) System

NAVER Privacy Center

Process of the PER System



Data Breach Prevention Campaign for NAVER Users

Through the NAVER Phishing Prevention Campaign on the NAVER Security blog, NAVER presents seven tips to prevent phishing attacks where the attacker impersonates a NAVER log-in service, informing users on how to identify attacks as well as how to use NAVER's ID Authentication. Through this service, the users can protect their blogs and cafes from hacking by verifying their identities. We also encourage users to take caution on impersonation attacks and phishing emails by posting related information at the top of the NAVER mail screen for both PC and mobile versions to ensure that users always have easier access to the information. We also provide information on how to set up mail and view activity logs to prevent damage to mail accounts, because all emails from a victim are sent to the attacker's server in real time, which can lead to secondary and tertiary damages if the POP3 and/or IMAP settings of an identity theft victim are turned on.

NAVER has been collaborating with various organizations to help users effectively protect their personal information. In May 2020, we signed a Memorandum of Understanding (MOU) with the Korea Internet & Security Agency (KISA) and in 2021, participated in the "My Information Guard Campaign" hosted by the KISA and the Personal Information Protection Commission, informing users of daily methods of protecting personal information.

In November 2021, we participated as the first runner in the "Relay Card News Campaign" introducing companies' efforts to protect users' personal information as well as their corporate status led by the Korea Internet Business Association. As part of the campaign, we created PR materials in the easy-to-understand "card news" format and thus introduced the NAVER Privacy Center providing a variety of information on privacy protection.

NAVER Security Blog

Personal Information Management Guidebook for Business Members

Building a Culture of Data Protection

PARTNERS' DATA PROTECTION MANAGEMENT

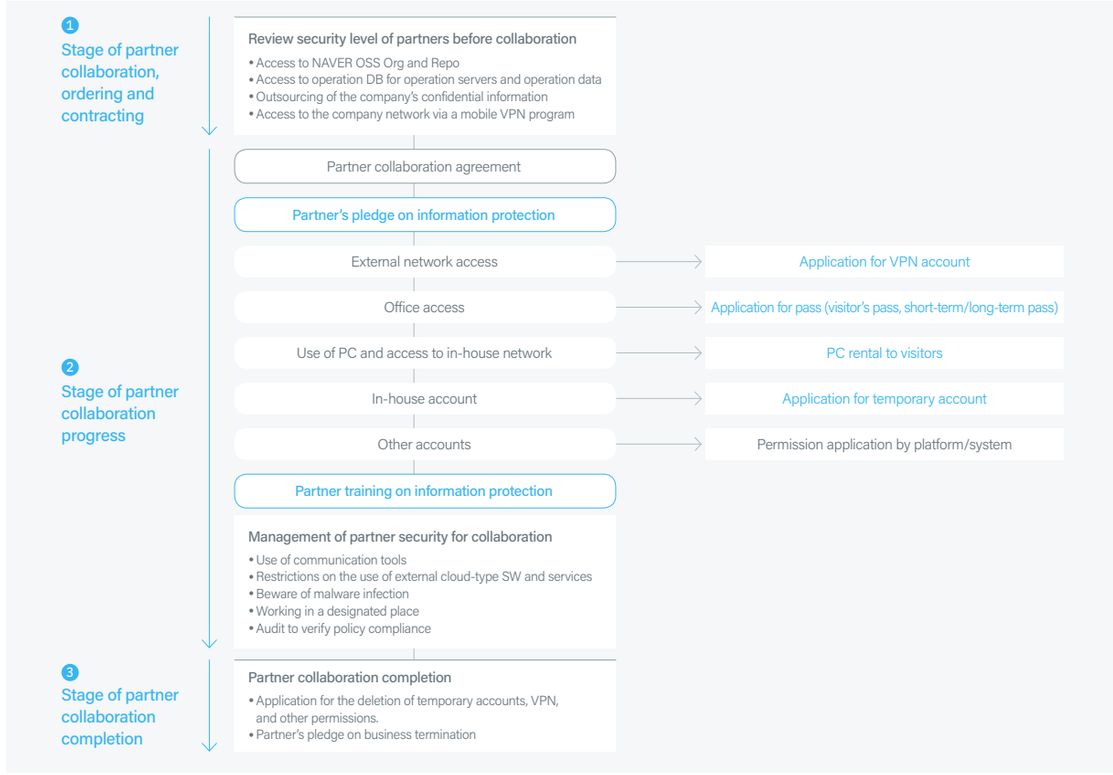
Strengthening Outsourcing Information Protection Procedures

When working with external partners, NAVER stipulates information protection particulars to be observed. For instance, in each stage of outsourcing process, from the contracting to the completion, NAVER manages information protection particulars that are required to its partners.

Helping Partners Strengthen Personal Information Protection Capabilities

Led by our Chief Privacy Officer (CPO), NAVER offered online data protection lecture for small business owners under the title, "Privacy Issues A to Z that Small Businesses Need to Know", during the Information Protection Month in July 2022 as we did in 2021.

Partner Collaboration Management Work Process



In addition, regular privacy protection campaigns were carried out to guide customers on the importance of personal information protection, such as not disclosing personal information in product reviews and Q&As, prohibiting account sharing on NAVER's Smart Store service, and deleting unnecessary personal information.

In the process of collaborating with its partners, NAVER provides partner-exclusive business terminals with enhanced information leak prevention controls to prevent leakages of the core technologies and information of those partners who work in the NAVER workplace. In addition, NAVER has been conducting Partner Information Protection Education since July 2022, to enhance the security awareness of members of partner companies and to prevent the kinds of security threats that may arise from acts of carelessness during the collaboration process.

Landing page of partner training on information portection

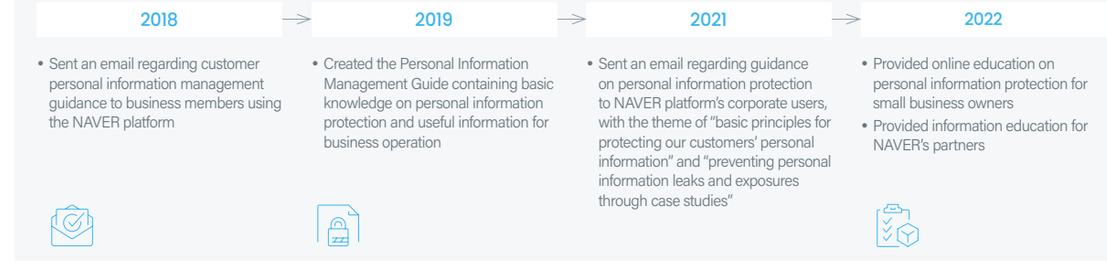
CHILDREN'S ONLINE PRIVACY PROTECTION

An amendment to the Information and Communications Network Act in June 2019 and the Personal Information Protection Act in August 2020 stipulates that when a notice is made in relation to personal information-processing for children under 14, it should be easy for children to understand and a consent from a legal representative is mandatory. Accordingly, we provide a children's version of the "consent for collection and use of personal information" when a child user registers to become a member. Also, the personal information usage details notification mail for users under 14 is written in a way that they can easily understand its content.

In addition, we are striving to strengthen the protection of children's right to privacy by launching the "NAVER Privacy TV for Children" channel within the Junior NAVER. The channel provides educational videos on personal information protection for children. Our band application "BAND for Kids" and "BAND" website have obtained the COPPA[1] Safe Harbor certificate from PRIVO, attesting that our children's online privacy protection systems meet global standards. Moreover, we make multifaceted efforts to enable children and adolescents to exercise their rights as data subjects. Leading examples include the participation of Personal Information Protection Commission's project aimed at nurturing adolescent privacy protection leader and the development/distribution of visual materials to inform of NAVER's personal information processing for children.

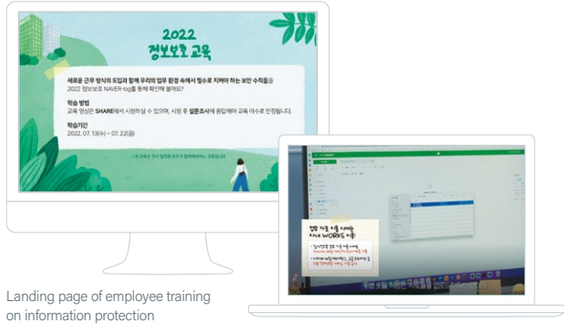
[1] Children's Online Privacy Protection Rule in the United States

Key Milestones for Enhancing Partners' Personal Information Protection Capabilities



Raising Data Protection Awareness and Building Trust

All of us at NAVER are committed to achieving better cybersecurity, with pride and responsibility as a member of a company that provides services which have become a part of the daily life of hundreds of millions of users worldwide.



Landing page of employee training on information protection

EMPLOYEE TRAINING ON DATA PROTECTION

The Personal Information Protection Act stipulates that companies shall provide employee education on privacy protection at least once a year. NAVER applies even stricter internal standards and provides such education twice a year. In 2022, NAVER provided basic education consisting of two privacy education sessions in the first and second halves of the year, as well as one information security education session. Personal information protection training is provided for all members of NAVER and those of NAVER's affiliates, including part-time employees, and personal information handlers. In the first half of the year, we opened five customized courses on the latest personal information protection issues and technologies, which are taught by external professional instructors. And in the second half of 2022, our internal representatives opened a total of eight customized courses for each level, from the basics to practice. For the education on information security, we created videos in a form of v-log to communicate the essential security rules that must be followed. The employees at NAVER showed active participation and positive feedback for the education. In particular, NAVER and its affiliates have monitored the completion status of mandatory legal education for all employees, and revoked the personal information handling authority of all those who failed to complete the education. Furthermore, when re-issuance of authority is required, employees must first confirm their completion of the personal information protection education.

NAVER's information protection training is available at three levels: basic, introductory, and practical. The employees can choose the level based on their duties or interests. Instead of outsourcing the education materials, NAVER's personal information protection managers took charge of planning and producing the training contents to enhance the practicality and applicability of the education. Moreover, we focused on strengthening our compliance to global privacy protection standards since 2021 by adding lectures on global privacy protection to the courses. As of 2022, 98% of target trainees have completed the education in both of first and second halves. Online employee education was offered to employees of NAVER and its affiliates on the subject of "security rules that must be followed in our work environment along with the introduction of new working methods" and as of 2022, 97.2% of all employees have completed the related training.

NAVER also provided about 120 internal information security notices throughout 2022 on matters requiring urgent or continuous compliance with information security, such as information protection campaigns, changes to the information protection policy, security vulnerabilities and patch management, in addition to the education on personal information protection. These notices have helped raise awareness of the overriding importance of cybersecurity among our employees.

In addition to the regular education, in March 2022 special lectures were held on the amendment of Japan Act on the Protection of Personal Information the EU's adequacy decision on the protection of personal data for Korea to support overseas expansions. In July, information protection training for partners to guide our employees on NAVER's information protection-related rules. In addition, through regular personal information protection campaigns, we help our employees recognize the importance of personal information protection in their daily lives.

Recent increases in NAVER's talent recruit have also reinforced the need for personal information protection and data privacy education. In response, we have categorized the new employee training curriculum into four parts – information protection, personal information protection, development security, and information protection practice. The deliberate education courses contribute to raising the new employees' awareness of the importance of privacy and allowing them to start working after familiarizing themselves with the company's information protection regulations. We also conduct the information protection training for new employees on a monthly basis, and at the end of each training session we survey the trainees on their satisfaction and obtain their feedback to increase the effectiveness of the training programs. In addition, we have been operating "TechShare" every month since 2019 to allow developers, who account for a large proportion of our employees, to continue to grow even in the rapidly-changing development environment. TechShare is a regular in-house technical training course designed by the Technology Growth Committee to enable developers to consolidate their basic skills in the areas of systems and security. Internal and external experts participate as mentors to share their skills, work experience, and expertise related to cyber-security with the trainees.

ENHANCING TRUST IN INFORMATION SECURITY

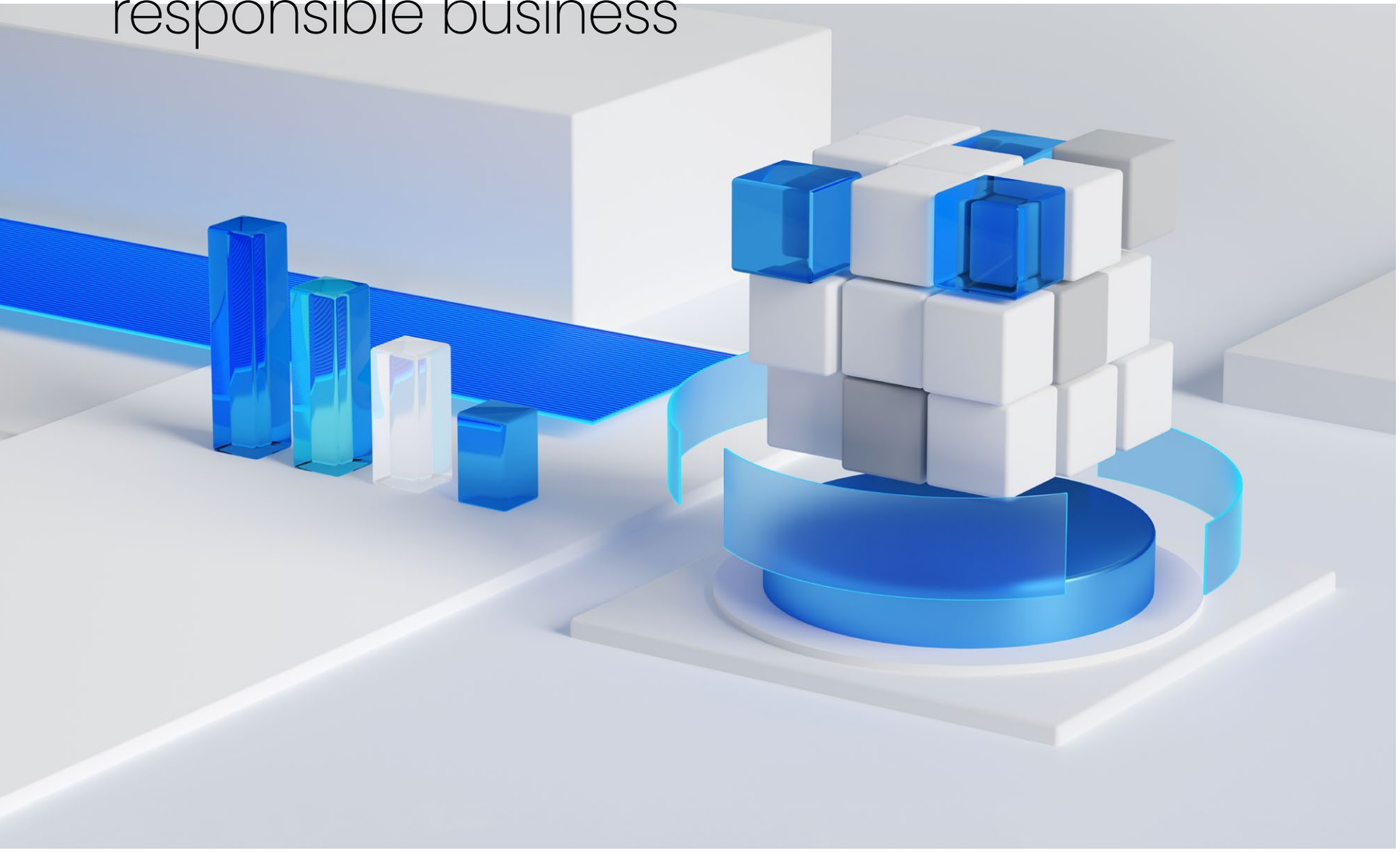
As a leading company that stands at the forefront of personal information protection and data privacy in Korea, NAVER has its information protection system verified annually by institutions with public trust at home and abroad to protect user privacy and personal information. As a result, we are strengthening the reliability of our information security so that users can use our services with confidence.

NAVER Information Security Certification

1. **ISMS-P: Certification of Personal Information & Information Security Management System**
   A certification that comprehensively considers information service protection and personal information protection management capabilities
2. **ISMS: Certification of Information Security Management System**
   A certification for ensuring the safety of information and communication networks and the ability to protect information assets of organizations
3. **APEC CBPR: Certification of Global Personal Information Protection Management System**
   An international certification that evaluates a company's personal information protection system based on the APEC privacy protection principles
4. **ISO/IEC: Certification of International Information Security Management System**
   An international certification to ensure continuous improvement of information protection levels and fulfillment of customer requirements
   Acquired ISO/IEC 27001, 27017, 27018, 27701
5. **SOC: Service Organization Control**
   Report on internal controls for services provided by service organizations

ESG COMMITMENT 7

Conducting responsible business



2022 KEY HIGHLIGHTS

Passed the post-certification review for the anti-bribery management system (ISO 37001)
(Jul. 2022)

ISO 37001

Introduced an internal consultation service for the implementation of AI Ethics
(Nov. 2022)

Consultation on Human-Centered AI's Ethical Considerations (CHEC)

Earned "Excellent" grade at the User Protection Task Evaluation conducted by the Korea Communications Commission
(Nov. 2022)

"Excellent" grade at the User Protection Task Evaluation

Minimizing Compliance Risks

As a global company that connects hundreds of millions of people around the world every day, NAVER strives to operate its business in a responsible manner. In particular, we fulfill our responsibilities as a transparent and trusted company through the strict practice of business ethics and protect the value of our stakeholders through proactive and thorough risk management.

MANAGEMENT APPROACH

NAVER hopes that its state-of-the-art technology can be used as an everyday tool for everyone. In order to realize the value and to ensure the sustainable development of cutting-edge technology, we must implement advanced risk management in line with the rapidly changing environment. To this end, NAVER makes concerted efforts to identify risk factors and preemptively respond to illegal videos, obscene materials, and malicious comments, as well as ethical issues of AI technology. In addition, NAVER places top priority on user protection by responding promptly in the event of a problem. We also do our utmost to make the NAVER AI Ethics Code a part of its corporate culture and all our employees, and intend to share insights and experiences we have accumulated with all members of society and industry. This is based on our belief that our thoughts and actions on AI are not mere assets of a certain company but social assets available to all. Good example of these efforts includes the NAVER-SAPI AI Report which we publish in partnership with Seoul National University AI Policy Initiative (SAPI).

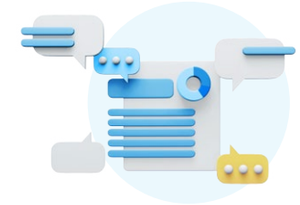
OUR KEY PERFORMANCE INDICATORS (KPI)

Enhancing internal audit and risk management system

- Establish and implement annual/mid-to-long-term internal audit plans based on the pool of risks associated with company's business

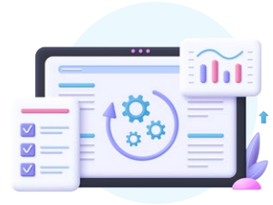
Earning "Excellent" grade at the User Protection Task Evaluation

- Maintain the Excellent grade at the "User Protection Task Evaluation" conducted by the Korea Communications Commission



Strengthening and advancing user protection activities

- Rebrand NAVER's current services by establishing an integrated user protection program within NAVER
- Reinforce the user protection-related task management system
- Strengthen and advance user protection activities
- Address user inconvenience/claims and expand self-resolution support



Creating healthy content culture

- Expand the automatic detection area of X-eye 2.0, an AI-based harmful-content blocking program

AI Ethics

NAVER strives to make cutting-edge AI technology a daily tool that anyone can use easily and conveniently. In addition, we put human-centered value at the core of development and use of AI.

AI FOR PEOPLE

NAVER has been developing technology in order to bring extra convenience to users' daily lives and make AI technology for daily use. NAVER AI Ethics Code is a representation of these values, responding to both the social demand for responsible AI technology and NAVER's corporate philosophy. In 2022, NAVER continued its efforts to adhere to the NAVER AI Ethics Code in the field while introducing its contents to outsiders.

In November 2022, NAVER held a joint webinar with the Seoul National University AI Policy Initiative (SAPI) and disclosed "Consultation on Human-Centered AI's Ethical Considerations (CHEC)", a NAVER AI ethics consultation process. CHEC is a process =the human-centered value of NAVER's AI services is highlighted from the perspective of the NAVER AI Ethics Code. The process aims to accommodate social concerns by examining and improving AI technology. The procedure is as follows: 1) when a service department using AI technology applies for CHEC 2) The AI Ethics team shares any social concerns regarding the issue 3) Realistic improvements are delivered based on the results of discussions with the person in charge. This is not a one-sided inspection but rather an interaction that can achieve realistic improvements. It is a process that materialize principles through examples, thereby fostering a corporate culture that naturally complies with the NAVER AI Ethics Code. CHEC was originally devised based on the feedback from the planning departments asking for specific measures to help them in the process of applying the NAVER AI Ethics Code to service development, as well as online townhall meetings involving members who were closely related to AI. As such, NAVER plans to continuously improve its CHEC process.

NAVER-SAPI AI Report

In December 2022, NAVER published the second report in collaboration with SAPI – "NAVER-SAPI AI Report: 2022 Case Study – Knowledge-iN Interactive, CLOVA CareCall". It introduced the way in which NAVER's AI service was planned and developed from the perspective of NAVER's AI Ethics Code, using the examples of "Knowledge-iN Interactive" and "CLOVA CareCall" among NAVER's AI services. Knowledge-iN Interactive, an interactive search service, is used as a convenient and reliable search tool to obtain user-tailored answers using verified sources. Meanwhile, CLOVA CareCall, an AI phone-call service, is a tool used to check for symptoms of COVID-19 among those required to do so, and to check the safety of seniors and single-person households, thereby contributing to the creation of a safer society. As such, NAVER is contemplating ways of making its AI services, such as Knowledge-iN Interactive and CLOVA CareCall, convenient tools for a wider range of users.

Going forward, NAVER will continue to share its concerns and experiences it has accumulated from operating the NAVER AI services with the society through joint webinars and AI reports. We will also strive to ensure that all our thoughts and efforts to integrate human-centered values into AI technology will lead to the creation of meaningful social value.

[NAVER AI Ethics Training] Direction of Naver AI Ethics Code

AI ETHICS CODE AND CORPORATE CULTURE

NAVER is committed to making the NAVER AI Ethics Code a part of its corporate culture practiced by all employees. In 2022, we created a video titled "Direction of Naver AI Ethics Code" as a way to encourage our employees to comply with the code of conduct when developing and using AI technology.

We also provided trainings related to various types of services for staff in charge of the Green Web Service, which monitors illegal and harmful information in 2022. The performance of job trainings related to the management of illegal and harmful information is as follows:

Job Training Related to Illegal and Harmful Information

Training Name (Service)	Training Hours
Images/videos (X-eye)	205
Cafes/blogs/posts	671
Knowledge-iN	193
Note	3
Cafe/Blog Metadata Inspection	252
Contents	610
Search results + search terms	223
News comments	356

Digital Accessibility

IMPROVING SERVICE ACCESSIBILITY FOR ALL

NAVER strives to guarantee that all users have equal access and use all information provided by its websites or applications, regardless of a user's specific environment or physical disability. Our digital accessibility is designed to benefit not only the disabled but also the elderly and non-disabled alike. NAVER uses the Korean Web Content Accessibility Guidelines 2.1 and Mobile Application Content Accessibility Guidelines 2.0 as its standards based on the W3C's Web Content Accessibility Guidelines to ensure accessibility for everyone.

We are exploring ways to use our existing accessibility and usability so that next-generation technologies and devices such as AI can improve the quality of life for all of our users without alienating anyone. To this end, we manage all of our systems in an integrated manner using LINK system, the first accessibility and usability integrated solution in Korea. In order to guarantee such accessibility, NAVER adopted "Easy-to-recognize", "Easy-to-use", "Easy-to-understand", and "Robustness" as our key operational principles in the development and delivery of more convenient services.

NAVER operates "NULI", which provides a digital accessibility experience, related standards and guidelines, education, and development tools. In particular, NULI runs a website that offers digital accessibility experiences where users can use the web environment as those who are visually impaired, blind, or with hand motor disabilities severe motor disabilities users, and other disabilities. Through NULI, NAVER considers ways to lower the threshold for digital accessibility for everyone.

In addition, NAVER has been hosting the "NULI Seminar" every year since 2012, through which it connects its technologies with research results from domestic and international experts and academia, to share insights and know-how on information accessibility for all. In 2022, the 10th NULI Seminar was held under the slogan "Beyond Now, Access to the New World", with the theme of "Today's accessibility where Industry 4.0 technologies are applied and technologies of tomorrow".

During the seminar, NAVER discussed the provision of alternative texts for webtoons using AI technology in NAVER Webtoon, while also sharing insights on ensuring accessibility through flutter accessibility in the Knowledge-iN app service. In addition, KAIST presented its research on game accessibility, and Korea University shared its colorblindness correction algorithm for webtoons. In particular, the implementation of alternative texts for webtoons using AI technology in NAVER Webtoon was demonstrated, with plans to release it in 2023, which will allow visually impaired users to enjoy NAVER Webtoon.

In 2023, NAVER opened the NAVER Accessibility Customer Center to provide guides for its users. Users can access the center to find help and service-specific guides in references to assistive technologies. Furthermore, users can inquire about any inconvenience they encounter while using NAVER's services through the inquiry channel. Going forward, we will continue our efforts to ensure that our technology is accessible to everyone. To this end, we will do our utmost to make accessibility a universal value that connects technology and people, and will engage in deeper considerations and broader sharing of knowledge.

NULI Website
NAVER Accessibility

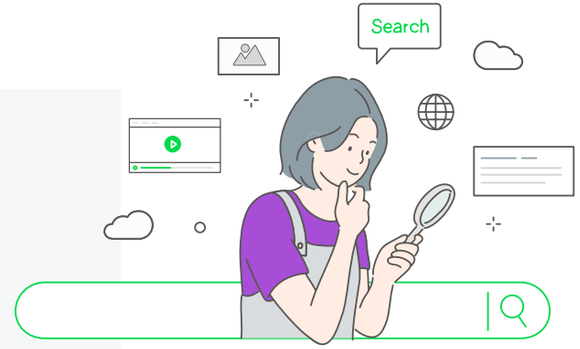
4 Principles of Information Accessibility

Easy-to-recognize
All content must be recognizable by users.

Easy-to-use
All components of user interface must be easy to use and navigate.

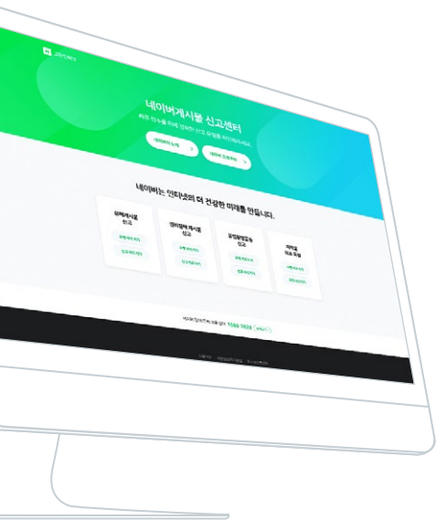
Easy-to-understand
Content must be constructed in a way that enables understanding, irrespective of disability.

Robustness
Web content must be developed robust enough to be accessed even with future technologies.



Green Internet

As a globally competitive IT platform company, NAVER is opening up diverse opportunities and possibilities, with the focus on providing users with a new experience of connection, while in the process making concerted efforts to ensure that the information and contents flowing in and out of its platforms are both safe and abundant.



NAVER Green Internet

NAVER Reporting Center

ENSURING USER PROTECTION

NAVER strives in various ways to protect the rights and interests of users that may arise across the diverse services that it provides. NAVER continuously utilizes advanced future technologies to enhance user protection systems and infrastructures. Furthermore, it is making concerted efforts to improve its response to user inconveniences and complaints, with the goal of enhancing users' satisfaction with its services. Moreover, NAVER responds proactively to the needs of vulnerable groups and works towards improvements, in line with changes in the internal and external environments. In particular, NAVER aims to become a globally trusted platform that provides a secure service environment and guarantees users' rights. To this end, NAVER proactively identifies and addresses all potential risk factors related to infringements of users' rights, and has established processes for minimizing harm to users.

Having secured its technological competitiveness, NAVER is making diverse efforts to fulfill its roles and meet social demands. Leading example include the "Green Internet Campaign" through which we have been taking the lead in eradicating illegal postings across the Internet. The NAVER Green Internet Campaign consists in establishing policies and guidelines for the following six areas – blocking adult content, blocking illegal content, protecting children and teenagers, protecting copyrights, protecting personal information, and ensuring user satisfaction and protection. NAVER implements these policies and guidelines promptly, assists and supports users in safely utilizing the NAVER platform by guaranteeing their freedom of expression and intellectual property rights, and restricts harmful content to ensure digital safety.

Moreover, NAVER has established a high-level operating policy based on the policy regulations of the Korea Internet Self-Governance Organization (KISO), established by a group of portal service providers, including NAVER, in 2009 to promote self-regulation of the Internet on a voluntary basis.

NAVER is committed to eliminating or minimizing harm to its users by establishing procedures and guidelines for compensation and handling cases involving infringements of user rights and damages to users connected with their use of the services and products provided by NAVER. Detailed information on NAVER's procedures for handling user complaints, dispute resolution processes, and guidelines, as well as reporting methods, are provided through the customer center (website) to ensure that users are well informed.

NAVER Green Internet

Blocking pornographic posts
- Expanding the application of real-time AI image filtering system of the X-eye
- Operating a dedicated monitoring team and the Emergency Report Center for quick handling

Blocking illegal postings
- Operating a 24-hour report center to receive reports of illegal postings, such as illegal photographs
- Operating a dedicated monitoring team to quickly block illegal posts
- Restricting the exposure of inappropriate search results when users input queries that might be harmful to youth
- Protecting users when they search for illegal queries by introducing channels for reporting, counseling, and relief

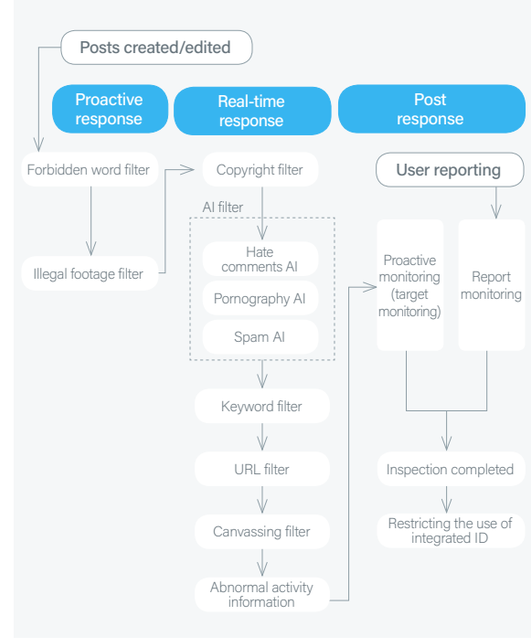
Protecting children and youths
- Blocking harmful posts by referring to internet content rating
- Minimizing exposure to harmful posts by children/youths through the age restriction function
- Providing professional counseling through connection with counseling organizations, including the Youth Counseling
- Support Center within Knowledge-iN
- Operating a dedicated monitoring team and the Emergency Report Center for quick handling

Protecting copyrights
- Operating the Copyright Protection Center to protect the rights and interests of creators
- Requesting for protection in advance to prevent illegal distribution of works
- Automatic content-blinding for content with copyrights by using database

Protecting personal information
- Operating the Privacy Center for management of personal information
- Running a personal information protection blog that delivers diverse knowledge about personal information
- Operating the Emergency Report Center for quick handling against personal information exposure

Satisfying and protecting users
- Improving services based on user experiences, such as user satisfaction surveys and user VOC analysis
- Operating a channel to collect voices of users
- Expanding distinctive customer services, including chatbots and the Mobile Customer Center
- Monitoring and operating a dedicated customer center per service type

Green Internet Activity Process – UGC Monitoring



Green Internet

TECHNOLOGY FOR REALIZING GREEN INTERNET

CLOVA GreenEye

NAVER has a monitoring system for user protection across all services and takes action against illegal postings reported at its 24/7 reporting channel. In particular, our AI-based "X-eye" program blocks 99% of attempts to post pornographic contents. In 2021, we upgraded X-eye 1.0 to version 2.0 that classifies harmful contents into four categories instead of two--normal, obscene, adult-only, and pornographic--with a higher filtering accuracy of 99.5%. NAVER has automated its model update process by linking X-eye 2.0 with uMon[1], expectedly increasing X-eye's accuracy and efficiency. Furthermore, X-eye 2.0 was rebranded in 2022 as "CLOVA GreenEye" and went public through the NAVER Cloud Platform as an open API, allowing startups or institutions lacking in technology to use it.

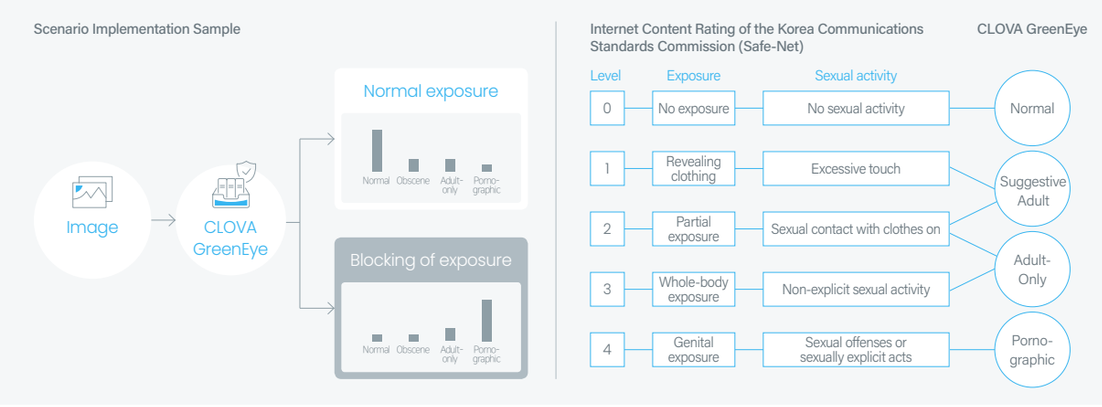
In 2022, NAVER did its utmost to prevent the distribution of illegally filmed videos and to block malicious comments. First example is the monitoring system that enables prompt reporting of and responses to illegal footages 24/7. Based on a technology provided by the Korea Communications Commission, NAVER introduced a DNA filtering system targeting illegal filming in particular. NAVER will further cooperate with the Commission to improve the system.

To address issues as to malicious comments, NAVER has been implementing various measures, such as disclosing the comment writers' nicknames and their activity history, as well as introducing a feature to block comments from specific individuals. Furthermore, the status of users who are restricted from commenting is displayed on their comment collection profile. NAVER also adopted an AI-based CleanBot, which detects swear words and rude expressions, and has significantly reduced hateful comments on its service platforms. In late 2022, NAVER expanded the filtering coverage of the CleanBot AI model to eliminate malicious comments containing hateful, discriminative, and demeaning languages.

Starting with NAVER Sports section's "Cheering Talk" and "Player Talk" during the 2022 Winter Olympics, the AI CleanBot will be applied to various areas. Also, the department overseeing user protection was reorganized into a committee that reports directly to the management to better address its role and responsibility.

[1] uMon: An integrated monitoring system that comprehensively manages and inspects user-generated contents (UGC)

Outline of the CLOVA GreenEye Technology and Application Sample



VOC SUPPORT FOR REALIZING GREEN INTERNET

As NAVER's service areas continue to expand, the number of VOCs (Voice of Customer) - such as inquiries, opinions, and requests for functional improvements - is also growing. To support the VOC and communicate with its users more actively, NAVER has developed new communication channels such as chat counseling, and SmartBot Counseling that incorporates AI technology to the existing call and mail services. NAVER also operates a customer center (https://help.naver.com) that can be accessed via PC and mobile. The company also responds promptly to requests and comments received in the VOCs to minimize users' inconvenience.

In addition, NAVER is doing its best to communicate with its users. For instance, the portal automatically suggests assistances when users search for relevant content on the portal, allowing the users to gain useful information without visiting the NAVER Customer Center page. In recognition of these efforts, NAVER earned "Excellent" grade at the "User Protection Task Evaluation" conducted by the Korea Communications Commission (KCC).

User Protection Task Evaluation and VOC Management Status

Classification		2020	2021	2022
User Satisfaction Survey	KCC's User Protection Task Evaluation	Excellent	Good	Excellent
User VOC management	No. of VOCs received	3,703,497	3,458,497	3,168,294
	No. of VOCs handled	3,476,554	3,288,039	2,992,985
	VOC handling rate	93.9%	95.1%	94.5%

* Including simple inquiries and suggestions in addition to the user inconveniences and complaints received at the NAVER Customer Center

User VOC Operation Process

Analysis
- Overall statistical analysis
- Classification of major VOC types
- Analysis of detailed VOC content
- Analysis of major problems
- Identification of major points for improvement

Improvement measures
- Derive measures to improve services
  - Improve service functions
  - Add service features
  - Strengthen information in the services
- Derive measures to improve the customer center
  - Improve tips
  - Improve SmartBot
  - Improve inquiry form

Improvement activities
- Service improvement activities
  - Implement improvements according to the level of urgency and importance after discussions with the service department
- Improvement activities for the customer center
  - Implement improvements immediately for tips, SmartBot, and inquiry form

Post- improvement check up
- Conduct a follow-up evaluation by checking customer satisfaction and reviewing inquiries, after implementing these improvements

Green Internet

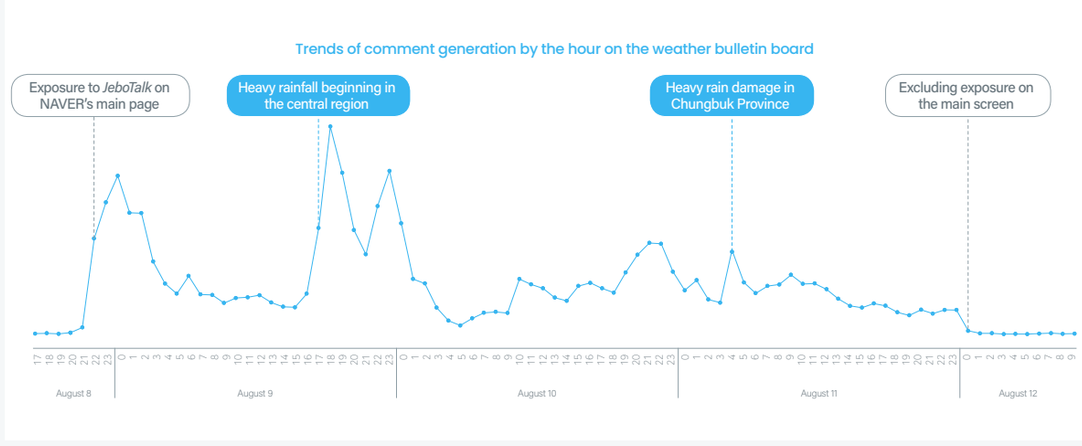
CASE STORY

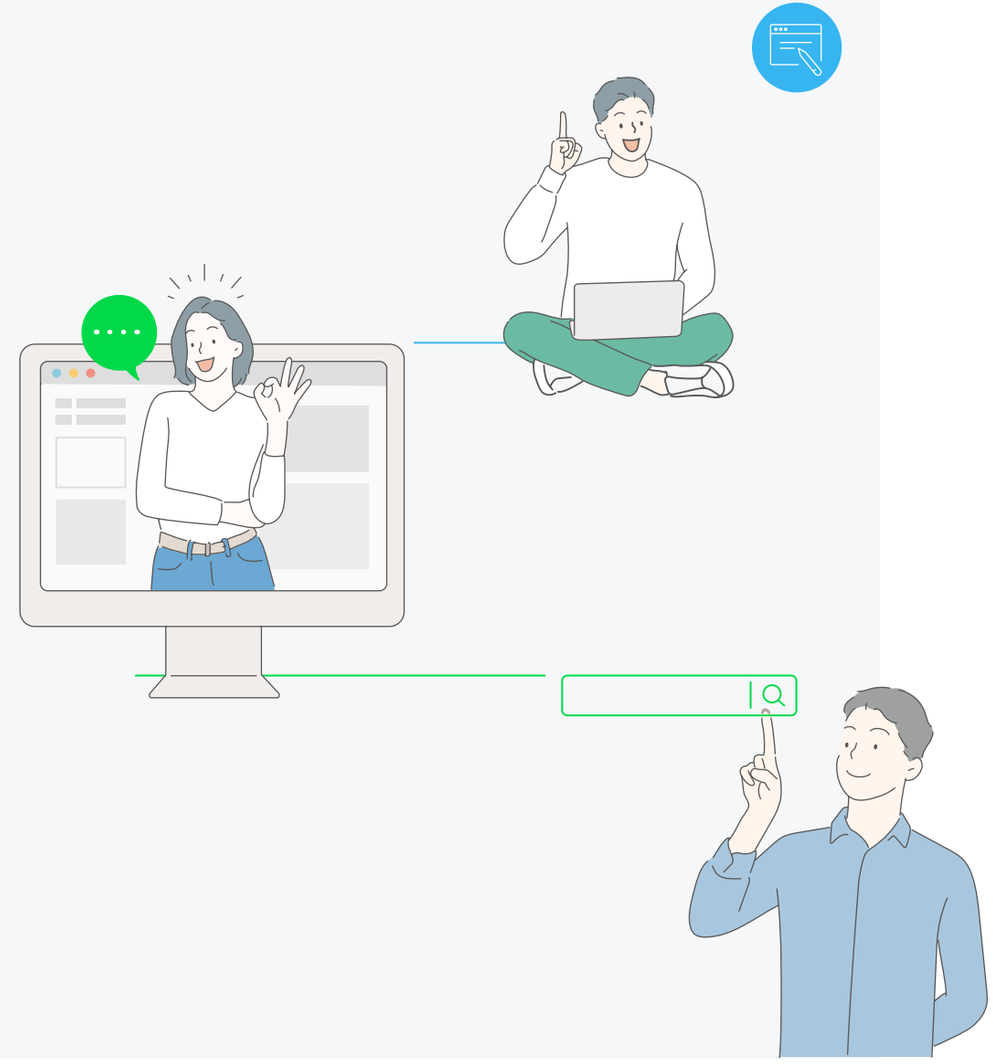
NAVER's approach to user protection during crisis

In August 2022, record-breaking torrential rains hit the metropolitan area of South Korea. Many were worried about the safety of their family and friends in the region. NAVER immediately set up a banner at the bottom of its main search window that is directly linked to Info-Talk (*Jebo-talk*), a real-time information exchange service dedicated to the weather conditions at the time. Through this service, users could leave comments on the real time conditions of the crisis. In this sense, this service perfectly demonstrated the power and value of comments as an effective interactive communication tool. However, as a large number of users were present at the service, malicious posts that could cause inconvenience and discomfort such as adult images and repetitive postings to other users also increased in number. The activity of habitual malicious commenters and abusers who interfered with the use of the service by sending promotional texts also surged. In response, utilizing its know-how in service safety and user protection, NAVER applied CleanBot, an AI filtering technology introduced for the first time in Korea in 2019, to automatically detect and mask malicious and unpleasant comments. Most notably, NAVER actively monitored and blocked comments that disregard for life, while restricting the activities of those posting such comments repeatedly, as part of its efforts to eradicate malicious comments that might cause inconvenience to service users or deter the safety of the service.

NAVER's efforts to establish a healthy comment culture continued not only during natural disasters, where prompt information sharing was critical, but also during the 2022 FIFA World Cup in Qatar, a sporting event that caught the attention of countless people around the world. NAVER responded actively to malicious comments, such as hateful expressions and sexual slanders -particularly against players who influenced the outcome of the football matches, as well as to malicious comments made following the matches. In particular, NAVER actively deployed an AI CleanBot to prevent malicious comments from leading to secondary damages. Currently, NAVER is upgrading its AI CleanBot technology and improving its performance with the aim of increasing the detection rate and eradicating comments containing degrading, discriminatory, and hateful expressions.

Comment flow by hour according to weather changes





Company-wide Risk Management System

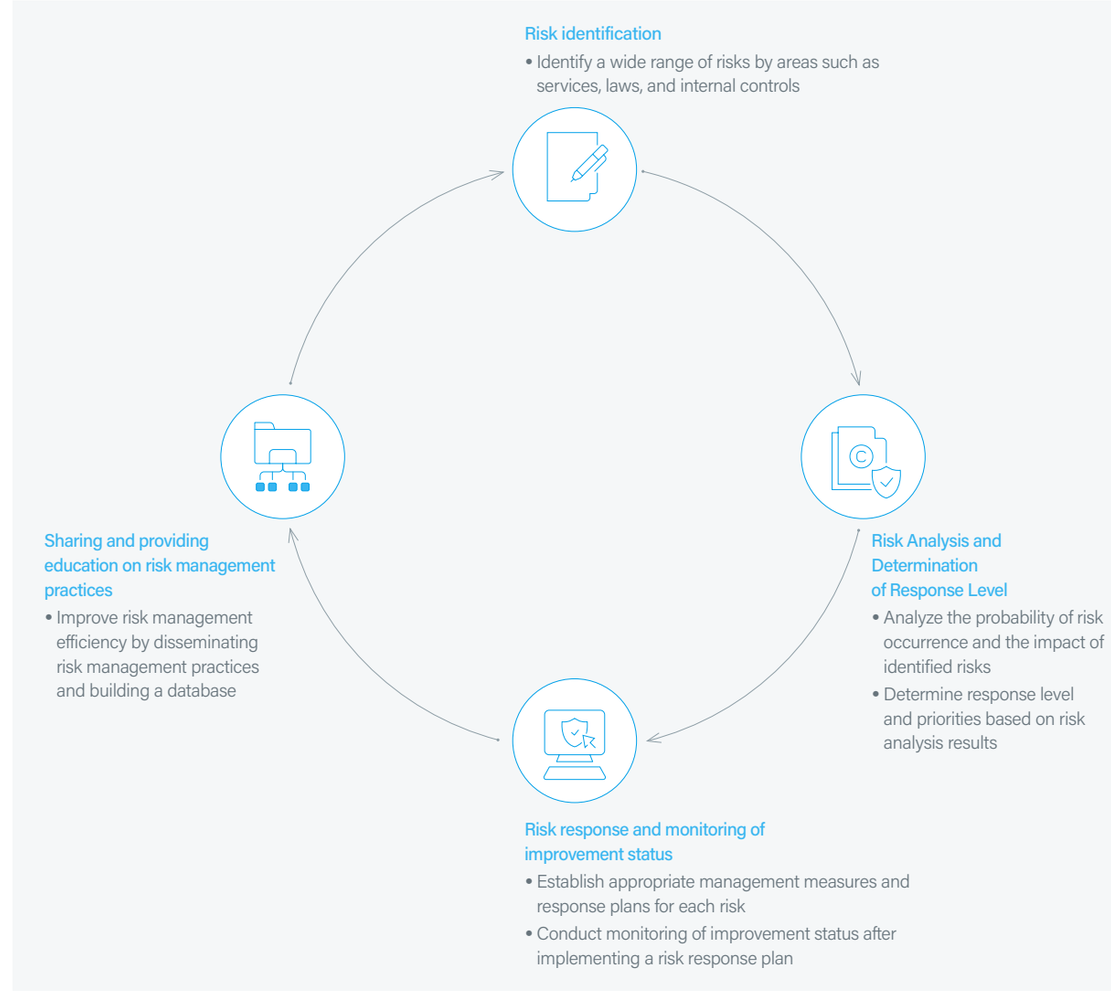
NAVER manages and responds to a wide range of economic, social, and environmental risks that may affect the company. Going forward, NAVER will prevent negative issues in advance and turn them into opportunities to create new value by systematically managing short, mid, and long-term risks.

OPERATION OF COMPANY-WIDE RISK MANAGEMENT SYSTEM

NAVER has put in place a coherent company-wide risk management system that reflects the characteristics of its business and the demands of its major internal and external stakeholders. In 2019, NAVER formed a task force (TF) to enhance its risk management system; reviewed the company-wide organizational risks related to strategy, investment, operation, and external policies; checked the methods and scope of its management; and established countermeasures and control levels suited to its service characteristics. Going forward, NAVER will continue to implement sustainable risk management by designing a process that can diagnose and manage risks in three dimensions, taking into account the core values of NAVER's services and platform.

NAVER's Risk Management Committee has established comprehensive company-wide risk management policies at the Board level, based on which it operates a corporate risk management system and regularly checks the status of its risk management practices. In particular, the Risk Management Working Group, which is composed of risk management managers for each area, manages and prevents risks from an integrated perspective, while maintaining expertise in their respective areas. When a cooperative response is required by multiple departments, RM Support gets directly involved in the necessary response and support measures through its flexible collaborative system.

NAVER Risk Management Process



Company-wide Risk Management System

1

Department dedicated to risk management for each service/CIC organization and subject

Department dedicated to risk management is an organization that can identify risks at the forefront and respond in an agile and effective manner. The service/CIC is committed to managing daily risks with the support of risk management organizations dedicated to specific themes and issues, such as legal affairs, DPP, security, and finance; whereas the risk management organizations communicate with the service/CIC organization to preemptively review risks and respond to individual risks. Notably, NAVER manages the possibility of service failures and risks in advance by operating a service launch inspection process by which risks are checked and reviewed individually prior to service launch, update, or termination, the times that are highly prone to risks.

2

Risk Management Working Group and RM Support

In the event that, during NAVER's service operations, complex risks arise whose knotted nature makes it particularly difficult for a single service/CIC organization or individual risk management organization to respond to, the Risk Management Working Group reviews and responds to that risk. The Group holds a regular meeting in which risk management managers of each subject participate. Operating at all times, it seeks collaboration to prevent risks in each field while figuring out potential risks that need to be additionally managed in line with changes in the business environment. The Group holds regular meetings every other week, but in the event of a significant risk, it convenes an emergency meeting immediately to prevent the spread of negative issues in advance and to minimize inconvenience for users of NAVER's services.

Meanwhile, RM Support, as an administrative unit of the Risk Management Working Group, organizes regular meetings of the Working Group. More specifically, RM Support identifies highly complex, company-wide risks with a potentially large impact and ripple effect among the risk factors detected during the service release inspection process, requested by the subject-specific risk management organization, or identified during the risk support process of that organization. It then brings the item to the Risk Management Working Group for discussion, thereby enhancing the effectiveness of risk management by directly supporting company-wide risk management activities.

3

Compliance Working Group and Compliance Department

The CP Working Group, which convenes monthly, is a consultative body established to manage NAVER's overall business risks. It also carries out various activities required to maintain the company's compliance system in such areas as ethical management, anti-corruption, and voluntary compliance with fair trade. The Compliance Department, which runs regular meetings of the Compliance Working Group, has established an internal control system to ensure that NAVER complies with the relevant laws and regulations at the company-wide level. As an organization that conducts education, campaigns, due diligence, and inspections for effective control, the department preemptively identifies, evaluates, and manages risks in order to prevent or minimize risks related to laws and regulations that may arise in the course of NAVER's business activities. The Compliance Department is responsible for establishing and operating a compliance/ethics management system in constant collaboration with the management, board of directors, and relevant internal departments. Its activities are explained in detail in the chapter on "Advancement of Ethics and Compliance Management."

Advancing Ethics and Compliance Management

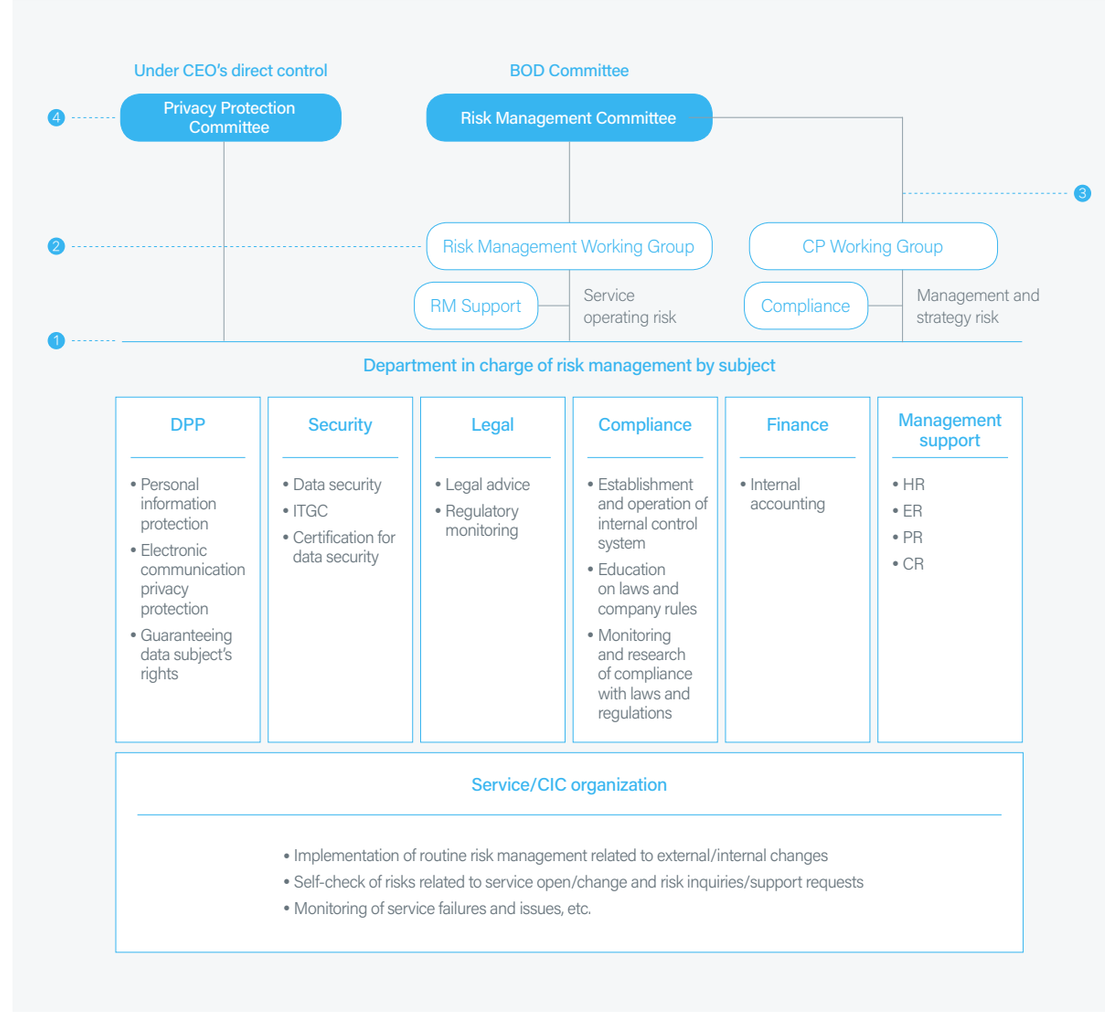
4

Risk Management Committee and Privacy Protection Committee

As an organization under the BOD, the Risk Management Committee is the highest organization responsible for matters associated with the company-wide risk management system, including the formulation and management of basic policies and strategies for integrated company-wide risk management. In particular, by reporting and reviewing the response plans and the status of their implementation, and the results of responses to major risks, the Committee assures an effective risk management system for the entire organization.

Meanwhile, any items of agenda related to data protection are also reported to the Privacy Protection Committee, an organization directly under the CEO, for professional risk identification and control. Chaired by the Chief Privacy officer (CPO), the Committee prevents the occurrence of issues through strict management of data privacy risks, with the management's full support.

NAVER Enterprise Risk Management



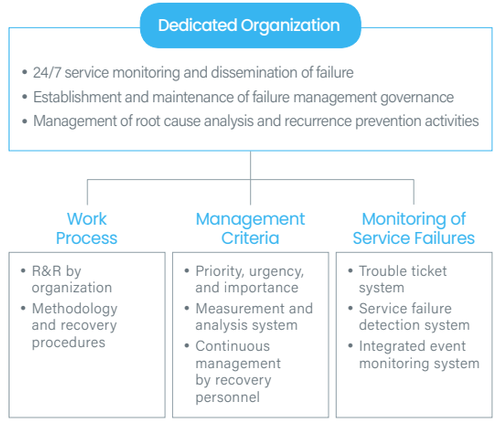
CASE STORY

Inspections and activities for providing stable services

Operating a service and traffic monitoring system for prompt response to incidents

NAVER operates a service and traffic monitoring system to respond quickly in the event of a incidents. The service monitoring system is operated 24/7 by a dedicated department throughout the year. When a service failure is detected, the recovery personnel for each service are immediately notified via SMS, email, push dissemination, etc. according to the predefined importance. Furthermore, we are doing our best to prevent the recurrence of such incidents through effective post-management.

To monitor its IT infrastructure, NAVER has established a dedicated management department responsible for continuous monitoring. We collect and monitor metric data for each area of the IT infrastructure in real time. In the event of any anomalies, the relevant information is communicated immediately to the personnel concerned by texting, notifications, and other means of communication. This information is also shared with each department and other relevant departments to assess the impact on services and to implement necessary measures for restoration and resolution.



Configuration and inspection of data center facilities for stable service provision

NAVER's cloud data centers are designed to provide uninterrupted services even in the event of unexpected hardware failures. The entire infrastructure, including the power supply, machinery, and fire protection, is built with an N+1 redundancy structure that guarantees stability and availability. Moreover, NAVER has established its own and leased data centers in various regions, and proactively invests in and manages facility technologies to enhance the continuity of its IDC services.

We conduct regular quarterly inspections of our data centers and review any vulnerabilities and areas for improvement in order to enhance their operational stability. We also classify the importance of equipment inspection and operation in stages and maintain the operational status of the infrastructure equipment at the highest level based on the prevailing standards for the equipment inspection cycle. In addition to conducting joint fire drills between public and private sectors at least once a year, we perform numerous checks and mock training exercises in addition to legal inspections.

Application of high availability (HA) technology for service redundancy

NAVER implements various redundancy technologies to enhance the availability of its services. These measures ensure that even if there are issues with individual components of the service, the overall service will continue to operate seamlessly.

- Adoption of GSLB (Global Server Load Balancing) technology for IDC redundancy and traffic distribution.
- IDC network redundancy technology (dual configuration of backbone and end switches).
- Adoption of distribution technology for major service systems (operating Kubernetes-based infrastructure platform and IDC distributed deployment)
- DB redundancy technology (dual configuration for each DBMS) and mutual backup between all IDCs.

NAVER's BCP for responding to and preventing various disasters

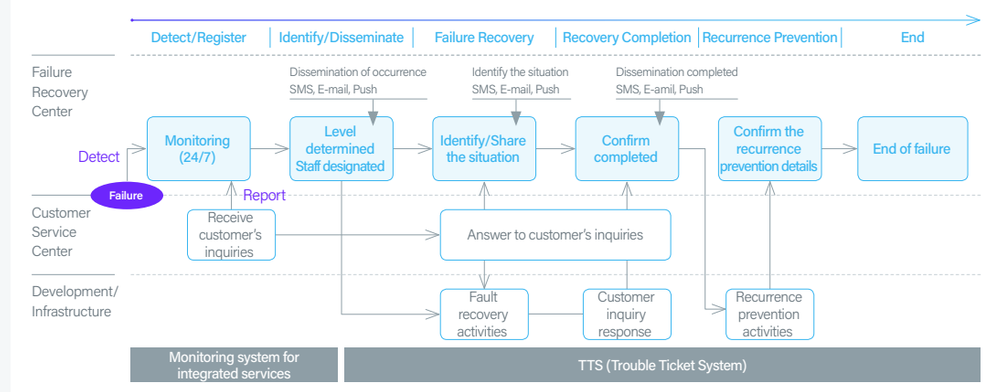
NAVER has established the Business Continuity Plan (BCP) to ensure that services are not interrupted and promptly continue business operations in the event of emergencies or disasters.

The BCP includes crisis response organizations and roles, crisis alert levels and orders, detailed response manuals for ten crisis situations (including fire, earthquake, blizzard, terrorism, natural disasters, infectious diseases, power sector, war, electronic intrusion, and power outage in office spaces), a situation dissemination process, and cooperation systems with related companies and organizations. In the event of a disaster, response and recovery will be carried out according to the corresponding response manuals. The BCP includes not only situation-specific response manuals but also detailed guidelines for individual actions by job and department, emergency contact networks, reporting systems, and departmental action items.

NAVER conducts BCP drills twice a year, with a focus on NAVER's cloud organization, and performs operational stability checks on a monthly or bi-monthly basis. Over the past ten years, NAVER has conducted more than 200 mock drills to establish a system that enables immediate response in similar situations. NAVER's services are managed based on four levels of Recovery Service and three levels of Continuous Service. The Recovery Service measures how quickly services can be restored in the event of a failure, while the Continuous Service assesses the company's ability to provide uninterrupted services during emergencies. These levels are used to categorize the importance of services as high, medium, or low, and to manage them accordingly. NAVER also ensures continuity through such measures as data redundancy and the operation of multiple data centers.

Failure response process for prompt handling of unexpected accidents

NAVER has set up a fault response system that can respond immediately whenever signs of abnormalities occur through the 24-hour monitoring of services. We have also established a process that enables quick recovery to minimize inconvenience to service users in the event of a service outage.



Advancing Ethics and Compliance Management

Corporate ethics is an important part of corporate social responsibility that NAVER must uphold as a major corporation. NAVER complies with business ethics and is striving to enhance corporate transparency based on unified efforts of all its members so that ethical management can be used as a competitive edge in sustainability that contribute to maintaining healthy partnerships with all its stakeholders.

NAVER'S ETHICS AND COMPLIANCE MANAGEMENT

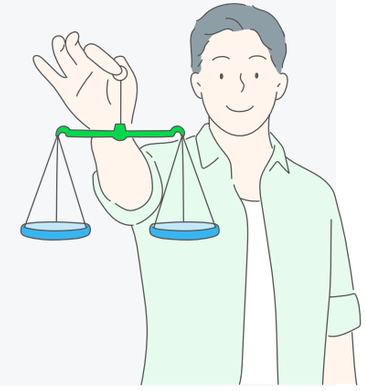
NAVER has established its Integrity Code, which stipulates the responsibilities that it has to fulfill as a large community, and the corporate standards that its employees must uphold in order to avoid conflicts of interest and respect one another. The Code is provided in three languages – Korean, English, and Japanese – and NAVER's employees are required to adhere to it faithfully, thereby fulfilling their responsibilities toward both users and wider society while building a reliable, transparent company. Furthermore, to encourage all its employees to participate in practicing the Code, NAVER asks all its full-time staff, contract workers, expatriates, and interns at the company headquarters to make an annual pledge of compliance. All of NAVER's subsidiaries also request their employees to pledge to the Code annually so as to re-familiarize themselves with its content and spirit. In 2021, NAVER established a new anti-corruption management policy, while in January 2023 it established and disclosed its anti-corruption and compliance management policy.

NAVER Integrity Code

NAVER Anti-Corruption and Compliance Management Policy

NAVER Corporation establishes an anti-corruption and compliance management system, and builds ethical management and compliance management to fulfill social roles and responsibilities while growing healthy in diverse relationships. To this end, NAVER establishes and discloses the anti-corruption and compliance management policy as the following.

- NAVER complies with all the compliance obligations, including domestic and foreign laws and internal regulations applied to business activities.
- NAVER strictly prohibits all acts of corruption, including receiving or demanding money and goods from business stakeholders, giving bribes, or making improper solicitation.
- NAVER continuously manages and improves the level of anti-corruption and compliance management through the establishment, implementation and monitoring of the anti-corruption and compliance management system.
- All members of NAVER should comply with all internal regulations currently in operation under this policy and the anti-corruption and compliance management system. All members of NAVER will strictly abide by and regularly sign an anti-corruption and compliance management pledge.
- NAVER appoints an anti-corruption and compliance officer to ensure independent authority and grant necessary rights and responsibilities.
- NAVER establishes and encourages the use of a reporting system for corruption prevention and compliance management in times of suspected or actual compliance violations, including acts of corruption. NAVER will also provide protection measures for reporters acting in good faith to allow members to participate in corruption prevention and compliance activities without any burden.
- NAVER takes measures such as disciplinary actions under company regulations when members of NAVER violate compliance obligations, including acts of corruption, or fail to take reasonable measures to prevent such acts even after recognizing the possibility of a violation.
- All members of NAVER's management fully supports the efficient operation of the anti-corruption and compliance management system.



Advancing Ethics and Compliance Management

Advancing the Anti-corruption Management System

NAVER acquired the ISO 37001 certification in 2021 with the aim of upgrading its anti-corruption management system and securing international credibility and passed the post-certification review in 2022. ISO 37001 is a standard for anti-bribery management system established by the ISO (International Organization for Standardization), which sets a global standard for establishing, implementing, maintaining, and improving the corruption-related system within an organization.

While application of the ISO 37001 standard is limited to "bribery", NAVER has expanded its scope to include "corruption" in an effort to practice more active ethical management, based on which it conducts certification audit. NAVER obtained ISO 37001 certification for the first time in 2021 and is maintaining it through regular post-audits. Also, by conducting regular corruption risk assessments, we do our utmost to effectively reduce corruption risks and enhance awareness among our employees regarding corruption risks.

In 2022, NAVER enhanced and documented its CEO's Commitment for Ethical Management, anti-corruption management regulations, and practical guidelines. In addition, all of our employees pledge to the Integrity Code to minimize potential risk factors in business operations and foster a culture of ethical management.

Based on the assessment of corruption risks considering their impact and likelihood, NAVER categorized the risks into high, medium, and low levels. For areas with remaining risks of medium level or higher, we identified issues and derived practical improvement tasks. Each year NAVER executes corruption risk control measures tailored to the characteristics of each business area, and the evidence for each risk control measure is collected and evaluated for effectiveness. In June 2022, NAVER reported the results of the corruption risk assessment, risk mitigation control measures, internal audit results, and improvement tasks related to the operation of the anti-corruption management system to the Risk Management Committee.

NAVER has set in place systems that can prevent corruption risks in advance and detect them afterwards, including a fraud risk prevention system based on the "Self-Check System," which is designed to foster the creation of a corporate culture in which employees voluntarily take preventive measures to avoid getting involved in serious acts of corruption. On the basis of constant monitoring, the Self-Check System identifies any abnormalities in the areas of individuals, business support, business practices, and technology; notifies the employees concerned via e-mail; gives them an opportunity to explain; and takes necessary action.

Furthermore, NAVER is enhancing the effectiveness of monitoring through scenario improvement, expanding its scope, and systematically strengthening the system's response to corruption risks. NAVER's management and all employees are committed to fulfilling their social responsibilities, along with sustainable growth, and will continue to make consistent efforts towards that end.

Reinforcing the Compliance Management System

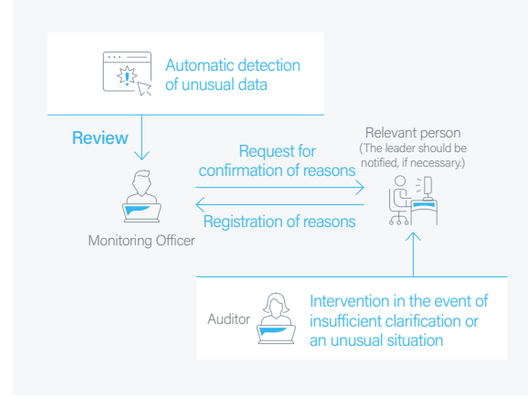
In 2023, NAVER acquired the ISO 37301 certification to secure external reliability by objectively verifying the effectiveness of its compliance management system and the adequacy of its operating system. ISO 37301 is an international standard for compliance management systems established by the ISO, which defines the requirements necessary to establish, implement, maintain and improve an effective compliance management system within an organization.

NAVER operates an effective control system to reduce the risk of violating laws through the establishment and operation of a compliance management system. More specifically, each year NAVER identifies the laws that apply to its services or business activities, and then evaluates the risks based on the outcome. Additionally, NAVER establishes control measures for its risks, monitors and checks whether its control measures are operating properly, and provides the relevant legal education to improve its executives' and employees' knowledge and understanding of compliance-related issues. In the event of new or amended legislation or a major change of government policy, NAVER reviews, analyzes, and shares it with its employees. NAVER also operates internal and external reporting channels through which legal violations and allegations can be reported anonymously.

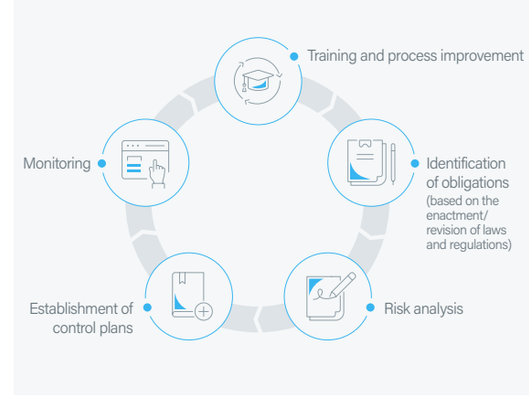
As such, NAVER has put into place a system for controlling and preventing the risk of legal violations. After the ISO 37301 certification review, the certification audit agency stated that NAVER's activities for personal information protection, UGC monitoring and harassment prevention were excellent examples of compliance. NAVER will continue to prepare and provide various legal training programs specific to its business for its employees, and will continue striving to further reduce the risk of legal violations by conducting more detailed risk analyses and establishing a systemized control system.

NAVER Anti-corruption System

Self-Check System Operation Process



Compliance Management System Operation Process to Reduce the Risk of Legal Violations



Advancing Ethics and Compliance Management

Fair Trade Compliance Program

NAVER operates the Fair Trade Compliance Program. In 2021, NAVER enacted the CP regulations to reflect the requirements of the Fair Trade Commission's manual and NAVER's business circumstances, while launching the CP Working Group headed by the CEO in order to manage and control its compliance risks. Also, NAVER launched a management system that allows the Compliance Department to report compliance-related issues directly to the Risk Management Committee within the BOD. Moving forward, NAVER will continue to develop and improve its fair trade self-compliance program by conducting careful reviews of the fair trade laws and the checklists for self-inspection.

Furthermore, NAVER conducts fair trade-related training for its employees every year, providing training on the overall Monopoly Regulation and Fair Trade Act in 2021. In 2022, NAVER provided mandatory training on the Act on Consumer Protection in Electronic Commerce and the Act on Fair Labeling and Advertising for the related departments. The 2022 training course consisted of precautions to be taken under the Act on Consumer Protection in Electronic Commerce, cases of violations of the law, and matters to be noted under the Act on Fair Labeling and Advertising when executing advertisements.

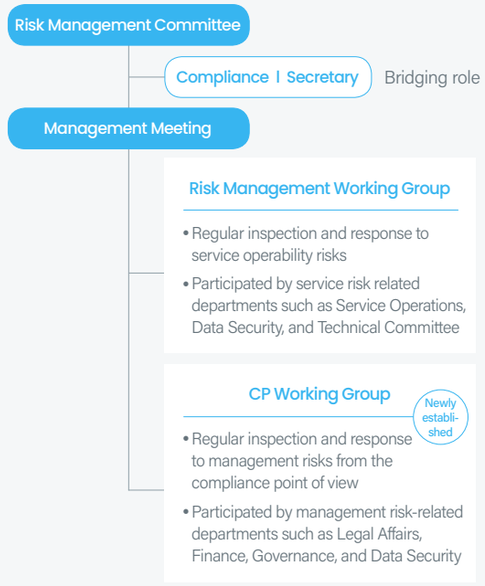
NAVER Anti-Corruption and Compliance Management Policy

BUSINESS ETHICS COUNSELING AND WHISTLEBLOWING

NAVER operates the Business Ethics Consulting Center to enable both employees and third parties to receive counseling and report employees' violations of laws including the Fair Trade Act; the use of one's position to make undue demands; the provision or receipt of money, goods, entertainment, or conveniences; complaints related to payment; leakages of confidential information; and any other corrupt or unlawful types of conduct. The Center can be accessed at the NAVER website in Korean and English, and reports can be made anonymously. Counseling and reports are handled privately even if they are made under a registered name to ensure that the identities of the relevant persons and the contents of their reports are thoroughly protected.

Each investigation is conducted independently under the responsibility of the Compliance Officer. Disciplinary action is deliberated by the Human Resources Committee based on the Integrity Code, the employment rules and other related regulations, while its adequacy is verified by an external expert. Whistleblowers may check the results in real time at the company website. In 2022, a total of eighteen reports were filed, all of which were processed according to the internal procedures.

Compliance Management System



Compliance Program Implementation and Training Performance in 2022

Education and activities	Relevant Laws, Company Rules	Target (Job/Position)	2022 Performance
Compliance Program Training	Overall Fair Trade Act	Employees in relevant jobs	• Session: Once • Participants: 156 persons
E-Commerce Law Education	Act on Consumer Protection in Electronic Commerce, etc.	Employees in the commerce job * Online Sales/Online Sales Intermediary	• Session: Once, contents posted for sharing •Participants: 577 persons
Education on Labeling and Advertising	Fair Labeling and Advertising Act	Employees related to labeling and advertising jobs	• Session: Once, contents posted for sharing • Participants: 18 persons
Education on Compliance with Legal Contracts	Fair Subcontract Transactions Act, Act On The Protection Of Temporary Agency Workers, etc.	Responsible leaders/Leader employees in sourcing duties	• Session: Once • Participants: 208 persons
Integrity Code Education	NAVER's Company Rules, the Improper Solicitation and Graf Act, etc.	All employees * Including new employees	• Session: Once
Education on Personal Information Protection	Privacy Act	All employees	• Session: Twice
Education on the Prevention of Workplace Sexual Harassment and Bullying	Framework Act on Labor, The Equal Employment Opportunity and Work-Family Balance Assistance Act	All employees * Training was added for new leaders	• Session: Once
Education on Improvement Awareness of Disabled People	the Act on the Employment Promotion and Vocational Rehabilitation of Persons with Disabilities	All employees	• Session: Once
Compliance Letter	Introduction to Legislation and Regulations, Amendments, and Systems	All employees	• Session: Occasionally

* Excluding the indication of the number of participants on courses targeting all employees

Business Ethics Consulting Center's Processes

1. Reporting
   - Reports can be submitted via online, mail, or e-mail (contents described according to the 6W principle).
   - Anonymous/named reporting is possible. The content and the whistleblower's personal ID are encrypted and stored on the server (personal information is destroyed within six months of achieving the purpose of its collection and use).
2. Fact-finding Investigations
   - A fact-finding investigation is conducted into each reported matter.
   - Additional data may be requested in the event of obvious false reporting or when basic facts are not verified.
   - Human rights of investigation participants are fully guaranteed.
3. Disciplinary Process
   - The HR Committee is convened and disciplinary action deliberated in accordance with the employment rules and the related regulations based on the results of the investigation.
   - External experts verify the appropriateness of disciplinary deliberations.
4. Announcement and Notification
   - Persons subject to disciplinary action are notified of the results of the disciplinary review.
   - The results are also notified in-house (except when there is concern about corporate confidentiality or violations of the human rights of the persons subject to discipline)

Advancing Ethics and Compliance Management

Reports can also be submitted via e-mail and mail. NAVER runs a reporter protection program so that anyone can consult and report with confidence. Under the reporter protection program, NAVER stipulates key provisions such as "protection of whistleblower status and report content according to the laws and corporate regulations"; "prohibition of disadvantages and discrimination against counselees"; and "compensation and indemnification for counselees".

I. We strictly protect reporters' identity and counseling contents in accordance with laws and company regulations.

II. We are committed to non-discrimination and protection of reporters and whistleblowers.

III. We provide reporters with appropriate compensation and indemnity.

NAVER continues to conduct VoP (Voice of Partners) surveys on all its partners to check whether the transaction process with NAVER (selection of companies, contract terms and conditions, contract termination, etc.) is transparent and fair. In addition, NAVER identifies ethical management risk areas through regular surveys and conducts ethical management risk audits once a year, and reports the audit results and follow-up measures to the Audit Committee on a regular basis. Through these surveys and auditing activities, NAVER is working hard to detect unreasonable situations both inside and outside the company ex post.

Measures Taken for Internal Ethical Regulation Violation

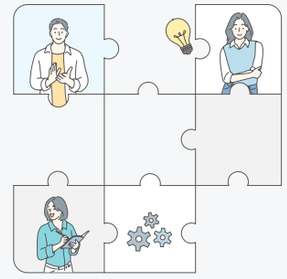
Classification	2020	2021	2022
Total	12	6	6
Wage cut	2	2	1
Indemnification	0	0	0
Dismissal	0	1	0
Others	10	3	5

EMPLOYEE ANTI-CORRUPTION EDUCATION AND INTEGRITY EDUCATION

Every year, NAVER requires all its employees, including contract workers and regular employees, to take the Integrity Code pledge and attend the related training, and makes various efforts to internalize ethical management by providing compulsory education on business ethics to new recruits and experienced employees. Most notably, each year NAVER offers separate ethical management training in the form of workshops to leaders with considerable roles and responsibilities. NAVER offered a training called "importance of the Integrity Code and my role" to its new recruits, and held an online training session for all its employees to emphasize the importance of the main contents of the Integrity Code related to business ethics, anti-corruption, and respect for human rights for all executives and employees. In 2022, NAVER began conducting anti-corruption training for all its employees, along with integrity training.

Corporate Ethics, Human Rights-based Principles (Integrity Code) and Anti-Corruption Trainings in 2022

- **Target:** All NAVER employees
- **Period:** March 21-December 31



Total number of participants
4,937

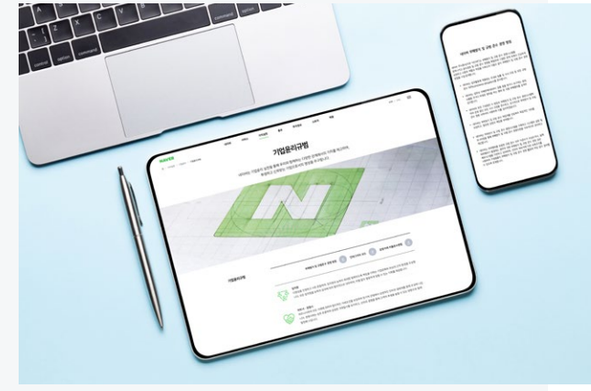
Number of employees completed the course
4,737

Completion rate
About 96%

Key Contents of NAVER's Anti-corruption Policy

1. Compliance with the anti-corruption laws and NAVER's internal regulations as well as the strict prohibition of corrupt practices.
2. NAVER's determination to establish, operate and continuously improve its anti-corruption management system.
3. Compliance with NAVER's anti-corruption policy and internal regulations by all NAVER members.
4. Compliance with the regular anti-corruption and compliance management pledges taken by all NAVER members.
5. Appointment of an anti-corruption compliance officer to handle NAVER's anti-corruption management, and guarantee of the officer's independent position.
6. Confidentiality and protection of whistleblowers who report corrupt activities.
7. Corresponding measures, such as disciplinary actions, taken in the event that NAVER employees violate the related laws or internal regulations, including anti-corruption policies (including cases in which employees fail to take reasonable measures to prevent the violation despite being aware of the violation).

In accordance with NAVER's anti-corruption policy, the Integrity Code is included among the internal regulations with which all members must comply.



* Source: NAVER Integrity Code and anti-corruption policy training materials

Responsible Tax Management

Upholding "tax filing and payment based on principles" and "social contribution through contribution to national finance" as its tax management principles, NAVER manages tax risks, fulfills its social responsibilities and meets its tax obligations by faithfully complying with the tax laws of the countries in which it operates.

TAX MANAGEMENT PRINCIPLES

NAVER strictly complies with domestic and international tax laws and treaties in all its transactions in order to fulfill its tax obligations as stipulated by law, and contributes to the national finances through accurate tax reporting and faithful tax payment, while maintaining transparent relations with the taxation authorities in countries in which it and its subsidiaries operate.

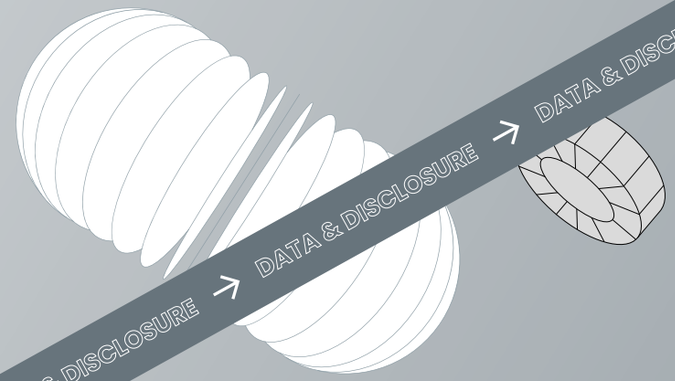
NAVER establishes and monitors its price policy on a continuous basis to prevent tax issues from occurring, based on normal price transactions in special interest party transactions at home and abroad. Moreover, NAVER observes the OECD guidelines in relation to international transactions while providing transfer price-related materials to each taxation authority in accordance with the 2017 legislation on the submission of taxation information by country in order to prevent Base Erosion and Profit Shifting (BEPS).

ENHANCING TAX TRANSPARENCY

To enhance the transparency of its tax burden to stakeholders, NAVER discloses tax-related information through its business reports. Furthermore, in order to apply the tax laws appropriately and protect its stakeholders, NAVER has internal and external tax experts conduct a final review of its major tax items and complies with its filing obligations.

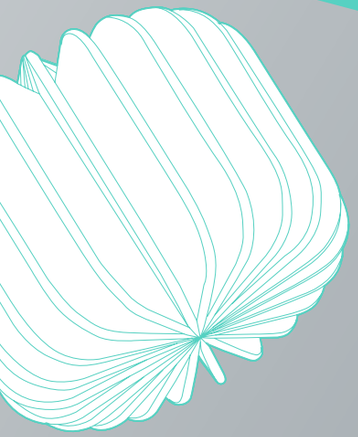
TAX RISK MANAGEMENT

When conducting transactions, NAVER determines the risks and makes decisions in consideration of the opinions of external tax experts beforehand. For complex, significant tax issues, NAVER addresses inquiries to the taxation authorities in advance and receives an authoritative interpretation before taking any further action. NAVER strives to prevent the various tax risks that may arise from the trading of goods and services, M&A, corporate restructuring, and changes in the transaction structure. When making business decisions, NAVER makes its final decisions after comprehensively reviewing the results of its examination of task risks and various business-decision factors.



DATA & DISCLOSURE

4.1 FINANCIAL PERFORMANCE INDICES
4.2 ESG PERFORMANCE INDICES
4.3 SASB INDEX
4.4 GRI INDEX
4.5 GHG VERIFICATION STATEMENT
4.6 THIRD PARTY'S ASSURANCE STATEMENT
4.7 AWARDS



Financial Performance Indices

STATEMENTS OF FINANCIAL POSITION

As of December 31, 2022, 2021, and 2020

(Unit: KRW)

NAVER Corporation and its subsidiaries	December 31, 2022	December 31, 2021	December 31, 2020
Assets			
I. Current assets	6,439,570,710,743	5,527,878,425,552	10,544,659,200,319
Cash and cash equivalents	2,724,168,321,708	2,781,395,543,827	1,600,304,349,922
Short-term financial instruments	1,216,410,034,221	673,555,739,311	291,292,142,737
Financial assets at fair value – profit or loss	745,584,919,599	461,932,777,511	922,939,095,062
Financial assets at fair value – other comprehensive income	-	24,254,505,540	-
Trade and other receivables	1,540,471,078,134	1,454,660,666,688	986,826,023,076
Inventories	8,651,839,041	6,139,904,767	4,344,942,323
Other current assets	194,039,763,315	124,296,250,629	77,702,716,446
Current tax assets	10,244,754,725	1,643,037,279	996,472,888
Assets held for sale	-	-	6,660,253,457,865
II. Non-current assets	27,459,472,178,393	28,163,128,331,488	6,469,579,463,451
Property, plant and equipment	2,457,820,240,295	2,111,261,659,613	1,684,563,340,866
Right-of-use-assets	738,710,004,475	290,462,942,745	129,537,198,819
Intangible assets	1,481,423,637,125	932,152,347,274	105,136,186,861
Long-term financial instruments	14,255,722,000	14,255,722,000	14,255,722,000
Financial assets at fair value – profit or loss	2,427,610,041,051	2,407,725,020,317	1,801,384,240,769
Financial assets at fair value – other comprehensive income	1,354,122,792,627	2,099,232,986,626	1,330,951,990,243
Investments in associates and joint ventures	18,541,286,921,720	20,090,304,016,842	1,199,425,686,734
Deferred tax assets	265,767,603,355	98,430,685,422	108,572,845,624
Trade and other receivables	76,754,808,757	46,387,217,185	28,578,223,832
Other non-current assets	101,720,406,988	72,915,733,464	67,174,027,703
Total assets	33,899,042,889,136	33,691,006,757,040	17,014,238,663,770

Financial Performance Indices

STATEMENTS OF FINANCIAL POSITION

As of December 31, 2022, 2021, and 2020

(Unit: KRW)

NAVER Corporation and its subsidiaries	December 31, 2022	December 31, 2021	December 31, 2020
Liabilities			
I. Current liabilities	5,480,633,710,849	3,923,319,146,652	7,911,751,492,331
Trade and other payables	1,245,664,499,219	992,675,127,701	689,280,186,019
Financial liabilities at fair value - profit or loss	71,905,225,561	-	17,137,640,886
Short-term borrowings	1,381,399,298,786	461,321,818,464	576,223,326,575
Current tax liabilities	349,087,471,196	515,246,293,598	384,340,634,677
Provisions	5,450,342,335	6,657,331,759	31,708,383,889
Lease liabilities	193,376,317,267	105,615,989,665	53,345,709,463
Other current liabilities	2,233,750,556,485	1,841,802,585,465	1,484,474,330,127
Liabilities held for sale	-	-	4,675,241,280,695
II. Non-current liabilities	4,968,086,697,836	5,740,311,261,113	847,355,136,226
Trade and other payables	69,639,961,691	118,079,924,927	68,448,327,272
Financial liabilities at fair value - profit or loss	684,617,869,427	508,994,104,631	7,962,264,800
Debentures	1,704,518,276,546	1,636,827,463,521	-
Long-term borrowings	328,034,313,380	1,552,014,025,878	150,678,259,061
Net defined benefit liabilities	577,397,964,363	554,264,628,196	462,094,245,426
Provisions	17,784,624,686	8,918,100,642	9,186,175,870
Lease liabilities	589,253,964,655	205,661,717,226	92,170,749,140
Deferred tax liabilities	985,870,669,008	1,155,139,324,751	56,519,491,022
Other non-current liabilities	10,969,054,080	411,971,341	295,623,635
Total liabilities	10,448,720,408,685	9,663,630,407,765	8,759,106,628,557

(Unit: KRW)

NAVER Corporation and its subsidiaries	December 31, 2022	December 31, 2021	December 31, 2020
Equity			
I. Equity attributable to owners of the Parent Company	22,744,095,607,040	23,535,637,694,902	7,367,219,163,302
Share capital	16,481,339,500	16,481,339,500	16,481,339,500
Capital surplus	1,556,453,389,615	1,490,214,367,768	1,793,273,489,872
Other components of equity	(2,474,526,129,371)	(1,051,465,837,344)	(1,059,479,508,530)
Accumulated other comprehensive loss relating to assets held for sale	-	-	(37,870,641,018)
Retained earnings	23,645,687,007,296	23,080,407,824,978	6,654,814,483,478
II. Non-controlling interests	706,226,873,411	491,738,654,373	887,912,871,911
Total equity	23,450,322,480,451	24,027,376,349,275	8,255,132,035,213
Total liabilities and equity	33,899,042,889,136	33,691,006,757,040	17,014,238,663,770

Financial Performance Indices

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the years ended December 31, 2022, 2021, and 2020

(Unit: KRW)

NAVER Corporation and its subsidiaries	December 31, 2022	December 31, 2021	December 31, 2020
I. Operating revenue	8,220,078,708,810	6,817,599,707,250	5,304,145,900,386
II. Operating expenses	(6,915,414,298,267)	(5,492,121,536,133)	(4,088,803,443,113)
III. Operating profit	1,304,664,410,543	1,325,478,171,117	1,215,342,457,273
Other income	310,571,804,200	52,722,438,756	43,356,685,840
Other expenses	375,658,237,080	232,866,247,091	118,822,813,655
Interest income	59,164,658,931	20,004,490,256	15,997,193,160
Finance income	619,735,977,200	765,693,953,525	508,563,848,219
Finance costs	931,522,674,095	349,334,091,066	146,432,800,279
Share of profit of associates and joint ventures	96,761,151,453	544,701,156,204	115,554,340,355
IV. Profit before tax	1,083,717,091,152	2,126,399,871,701	1,633,558,910,913
Income tax expenses	410,536,791,065	648,668,889,581	492,534,781,634
V. Profit from continuing operations	673,180,300,087	1,477,730,982,120	1,141,024,129,279
VI. Profit of discontinued operations	-	14,999,894,577,525	(296,027,152,130)
VII. Profit for the period	673,180,300,087	16,477,625,559,645	844,996,977,149
Profit for the period attributable to: Owners of the Parent Company	760,260,876,247	16,489,849,771,129	1,002,086,766,379
Profit from continuing operations	760,260,876,247	1,493,472,246,748	1,144,888,651,236
Profit of discontinued operations	-	14,996,377,524,381	(142,801,884,857)
Non-controlling interests	(87,080,576,160)	(12,224,211,484)	(157,089,789,230)
Loss from continuing operations	(87,080,576,160)	(15,741,264,628)	(3,864,521,957)
Profit of discontinued operations	-	3,517,053,144	(153,225,267,273)

(Unit: KRW)

NAVER Corporation and its subsidiaries	December 31, 2022	December 31, 2021	December 31, 2020
VIII. Other comprehensive income (loss):	(1,388,015,023,214)	(252,564,745,906)	221,200,846,911
Items that will be reclassified subsequently to profit or loss:	(1,201,075,972,444)	(190,772,138,482)	17,441,573,739
Loss on valuation of debt instruments at fair value – other comprehensive income	-	(483,039,456)	(730,019,603)
Exchange differences	122,569,353,269	71,043,967,706	76,248,398,266
Share of other comprehensive loss of associates and joint ventures	(1,323,645,325,713)	(261,333,066,732)	(58,076,804,924)
Items that will not be reclassified subsequently to profit or loss:	(186,939,050,770)	(61,792,607,424)	203,759,273,172
Loss on valuation of equity instruments at fair value – other comprehensive income	(484,843,494,849)	(90,787,478,622)	168,450,037,860
Gain (loss) on disposal of equity instruments at fair value – other comprehensive income	(45,127,813,925)	21,602,409,626	37,778,484,516
Share of other comprehensive income of associates and joint ventures	274,285,784,800	9,512,437,761	(1,084,708,978)
Remeasurements of net defined benefit liabilities	68,746,473,204	(2,119,976,189)	(1,384,540,226)
IX. Total comprehensive income (loss) for the period, net of tax	(714,834,723,127)	16,225,060,813,739	1,066,197,824,060
Owners of the Parent Company	(681,315,237,223)	16,233,387,235,875	1,219,788,331,559
Non-controlling interest	(33,519,485,904)	(8,326,422,136)	(153,590,507,499)
X. Earnings per share attributable to the equity holders of the Parent Company			
Basic earnings per share			
From continuing operations	5,007	9,977	7,857
From discontinued operations	-	100,877	(980)
Diluted earnings per share			
From continuing operations	4,985	9,887	7,813
From discontinued operations	-	99,973	(980)

Financial Performance Indices

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

For the years ended December 31, 2022 and 2021

(Unit: KRW)

NAVER Corporation and its subsidiaries	Non-controlling interests			Retained earnings	Non-controlling interests	Total
	Share capital	capital Surplus	Other components of equity			
As of January 1, 2022	16,481,339,500	1,490,214,367,768	(1,051,465,837,344)	23,080,407,824,978	491,738,654,373	24,027,376,349,275
Total comprehensive loss for the period:						
Profit (loss) for the period	-	-	-	760,260,876,247	(87,080,576,160)	673,180,300,087
Loss on valuation of equity instruments at fair value – other comprehensive income	-	-	(474,353,140,790)	-	(10,490,354,059)	(484,843,494,849)
Loss on disposal of equity instruments at fair value – other comprehensive income	-	-	-	(45,127,813,925)	-	(45,127,813,925)
Exchange differences	-	-	63,009,982,513	-	59,559,370,756	122,569,353,269
Share of other comprehensive loss of associates and joint ventures	-	-	(1,048,615,188,657)	-	(744,352,256)	(1,049,359,540,913)
Remeasurements of net defined benefit liabilities	-	-	-	63,510,047,389	5,236,425,815	68,746,473,204
Transactions with shareholders:						
Dividends	-	-	-	(213,363,927,393)	-	(213,363,927,393)
Transaction of share-based payment	-	67,393,043,440	39,825,657,554	-	34,276,350,905	141,495,051,899
Transactions with non-controlling interests	-	(1,154,021,593)	(2,927,602,647)	-	213,731,354,037	209,649,729,797
As of December 31, 2022	16,481,339,500	1,556,453,389,615	(2,474,526,129,371)	23,645,687,007,296	706,226,873,411	23,450,322,480,451

Financial Performance Indices

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

For the years ended December 31, 2022 and 2021

(Unit: KRW)

NAVER Corporation and its subsidiaries	Equity attributable to owners of the Parent Company				Non-controlling interests	Total
	Share capital	capital surplus	Other components of equity	Retained earnings		
As of January 1, 2021	16,481,339,500	1,793,273,489,872	(1,097,350,149,548)	6,654,814,483,478	887,912,871,911	8,255,132,035,213
Total comprehensive income for the period:						
Profit (loss) for the period	-	-	-	16,489,849,771,129	(12,224,211,484)	16,477,625,559,645
Loss on valuation of debt instruments at fair value – other comprehensive income	-	-	(483,039,456)	-	-	(483,039,456)
Loss on valuation of equity instruments at fair value – other comprehensive income	-	-	(89,930,381,735)	-	(857,096,887)	(90,787,478,622)
Gain on disposal of equity instruments at fair value – other comprehensive income	-	-	-	20,113,624,459	1,488,785,167	21,602,409,626
Exchange differences	-	-	69,361,969,714	-	1,681,997,992	71,043,967,706
Share of other comprehensive income (loss) of associates and joint ventures	-	-	(252,386,900,150)	-	566,271,179	(251,820,628,971)
Remeasurements of net defined benefit liabilities	-	-	-	(3,137,808,086)	1,017,831,897	(2,119,976,189)
Transactions with shareholders:						
Dividends	-	-	-	(59,278,532,070)	(531,574,395)	(59,810,106,465)
Transaction of share-based payment	-	42,100,214,545	203,998,585,965	-	31,193,147,446	277,291,947,956
Retirement of treasury shares	-	-	15,492,077,217	(15,492,077,217)	-	-
Transaction of treasury shares	-	332,414,020,979	104,643,917,817	-	-	437,057,938,796
Disposal of subsidiaries	-	363,352,647,014	(215,252,060)	(6,461,636,715)	(503,245,404,163)	(146,569,645,924)
Transactions with non-controlling interests	-	(1,040,926,004,642)	(4,596,665,108)	-	84,736,035,710	(960,786,634,040)
As of December 31, 2022	16,481,339,500	1,490,214,367,768	(1,051,465,837,344)	23,080,407,824,978	491,738,654,373	24,027,376,349,275

Financial Performance Indices

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ended December 31, 2022, 2021, and 2020

(Unit: KRW)

NAVER Corporation and its subsidiaries	2022	2021	2020
I. Cash flows from operating activities	1,453,390,444,990	1,379,905,728,836	1,447,212,217,640
Cash generated from operations	2,298,686,419,871	2,070,030,950,700	2,041,772,594,491
Interest received	20,673,303,127	26,262,580,497	20,014,015,757
Interest paid	(40,173,810,844)	(58,256,588,522)	(71,543,208,626)
Dividends received	34,753,150,218	54,754,937,073	30,187,486,156
Income tax paid	(860,548,617,382)	(712,886,150,912)	(573,218,670,138)
II. Cash flows from investing activities	(1,215,888,095,959)	(13,998,804,731,074)	(2,503,202,276,036)
Net decrease in short-term financial instruments	(574,934,228,334)	(348,046,243,066)	(25,654,808,271)
Acquisition of financial assets at fair value – profit or loss	(5,151,401,634,229)	(6,449,235,633,165)	(5,243,104,789,547)
Proceeds from disposal of financial assets at fair value – profit or loss	4,727,172,598,822	6,505,643,614,364	3,894,138,692,719
Decrease of financial liabilities at fair value – profit or loss	(16,016,168,742)	-	-
Increase in long-term financial instruments	-	-	(2,560,000,000)
Decrease in long-term financial instruments	-	-	21,200,000,000
Acquisition of property, plant and equipment	(700,733,545,914)	(753,942,606,877)	(759,403,180,962)
Proceeds from disposal of property, plant and equipment	12,203,857,538	6,695,944,177	8,987,856,807
Collection of lease receivables	7,462,366,762	3,773,243,178	1,417,837,269
Acquisition of intangible assets	(55,500,428,444)	(51,876,515,767)	(106,290,121,972)
Proceeds from disposal of intangible assets	923,978,480	167,684,511	3,304,588,760
Acquisition of financial assets at fair value – other comprehensive income	(46,595,632,596)	(509,090,098,200)	(50,971,937,342)
Proceeds from disposal of financial assets at fair value – other comprehensive income	126,380,427,929	229,335,330,042	232,310,319,161
Acquisition of investments in associates and joint ventures	(257,838,142,800)	(1,005,949,593,054)	(504,730,950,380)
Proceeds from disposal of investments in associates and joint ventures	702,978,746,957	440,573,420,629	104,952,900,033
Net increase (decrease) in cash due to business combination	4,264,026,832	(692,206,904,793)	2,260,617,141
Net cash flow due to the transfer of subsidiaries to associates	-	(11,244,715,159,430)	(20,383,308,053)
Net decrease in short-term loans	(494,633,010)	(115,777,475,728)	(35,244,144,863)
Net increase (decrease) in long-term loans	146,412,000	(40,000,000)	(11,864,566,845)
Cash inflows (outflows) from other investing activities	6,093,902,790	(14,113,737,895)	(11,567,279,691)

(Unit: KRW)

NAVER Corporation and its subsidiaries	2022	2021	2020
III. Cash flows from financing activities	(339,465,120,952)	11,642,326,424,402	1,192,133,678,978
Proceeds from short-term borrowings	139,564,583,333	260,601,900,208	2,116,540,667,363
Repayments of short-term borrowings	(358,505,249,749)	(529,248,749,764)	(915,187,873,624)
Proceeds from long-term borrowings	106,435,416,667	1,598,040,294,214	886,562,480,808
Repayments of long-term borrowings	(100,690,379,540)	(2,642,484)	-
Proceeds from issuance of debentures	-	9,403,866,052,933	5,960,669,395
Repayment of debentures	-	-	(789,055,599,548)
Repayment of lease liabilities	(178,551,442,728)	(114,274,687,061)	(174,107,173,293)
Increase in financial liabilities at fair value – profit or loss	130,504,106,918	386,482,769,394	-
Acquisition of treasury shares	-	-	(15,516,003,480)
Disposal of treasury shares	-	176,145,173,981	-
Dividends paid	(213,363,927,393)	(59,784,555,522)	(54,949,639,640)
Share issuance of subsidiaries	-	-	1,023,167,174,015
Exercise of stock options	61,406,468,500	39,796,328,200	-
Cash inflows from transactions with non-controlling interests	87,981,692,188	114,530,208,868	46,060,159,984
Cash outflows from transactions with non-controlling interests	(15,572,499,931)	(350,963,263,102)	(945,751,987,650)
Cash inflows from other financing activities	3,916,338,007	1,070,216,109,602	23,806,129,662
Cash outflows from other financing activi ties	(2,590,227,224)	(353,078,515,065)	(15,395,325,014)
IV. Effects of exchange rate changes on cash and cash equivalents	44,735,549,802	(87,699,641,884)	(30,989,618,453)
V. Net decrease in cash and cash equivalents	(57,227,222,119)	(1,064,272,219,720)	105,154,002,129
VI. Cash and cash equivalents at the beginning of the period	2,781,395,543,827	3,845,667,763,547	3,740,513,761,418
Cash and cash equivalents classified as assets held for sale at the beginning of the period	-	2,245,363,413,625	-
Cash and cash equivalents in the statements of financial position at the beginning of the period	2,781,395,543,827	1,600,304,349,922	3,740,513,761,418
VII. Cash and cash equivalents at the end of the period	2,724,168,321,708	2,781,395,543,827	3,845,667,763,547

Financial Performance Indices

SUBSIDIARIES

Classification	Company Name	Location	Major Business	Assets (KRW million)	Ownership (%)
Major subsidiaries (20)	NAVER J.Hub Corporation	Japan	Global business support	2,084,367	100
	NAVER Cloud Corporation	Korea	IT Infrastructure Service	1,373,971	100
	NAVER WEBTOON COMPANY Corporation	Korea	Webtoon service development and management	959,626	100
	LINE Digital Frontier Corporation	Japan	Webtoon service development and management in Japan	368,211	100
	NAVER France	France	Business development and R&D in Europe	339,500	100
	eBOOK Initiative Japan Co., Ltd.	Japan	Japan ebook service	149,796	100
	NAVER Cloud Asia Pacific Pte Ltd	Singapore	IT infrastructure operations (Asia)	90,938	100
	Studio N Corporation	Korea	Film production and distribution	82,419	100
	Works Mobile Japan Corporation	Japan	Groupware service operations and distribution (Japan)	81,596	100
	NAVER LABS Corporation	Korea	R&D	25,354	100
	C-FUND Subfund 3	France	Investment	197,023	99.75
	SVA Soda	Korea	Investment	90,601	99.52
	SB Next Media Innovation Fund	Korea	Investment	228,936	96.3
	TBT Global Growth Fund I	Korea	Investment	96,949	89.91
	WORKS MOBILE Corporation	Korea	Groupware service operations and distribution	231,354	89.41
	NAVER Financial Corporation	Korea	Electronic financial business	3,252,545	89.21
	Snow Corporation	Korea	Camera and communication application development service	277,847	82.96
	NAVER Z CO., LTD.	Korea	Mobile service development and operations	193,590	70.51
	WEBTOON Entertainment Inc	U.S.	Webtoon service development and management	1,356,681	67.52
	KREAM Corporation[1)]	Korea	Limited goods trading platform operations	241,704	48.75
Other subsidiaries (80)	MUNPIA INC., SVA Content Media Private Equity Fund II, N Tech Service Corp., SpringCamp Early Stage Fund 2, NAVER VIETNAM COMPANY LIMITED, Wattpad Corporation, C-FUND Subfund 5, NAVER Cloud Japan Corporation, NAVER I&S Corp, Green Web Service Corp, NAVER WEBTOON COMPANY Corporation, C-Fund, LOCUS CORPORATION, SNOW China Limited., InComms Corp, SpringCamp Early Stage Fund 1, NAVER-KTB Audio Contents Fund, SpringCamp Inc., Wattpad Webtoon Studios Inc., Watong Entertainment Limited, Cake Corporation, Playlist Corporation, NAVER CHINA CORPORATION, Smart Spring Fund, NITService Corp., NAVER CLOUD AMERICA INC, NAVER Cloud Europe GmbH, C-FUND Subfund 4, CommPartners Corp., NAVER U.Hub Inc, Amuse Co.,Ltd., Locus Theater Ani 2015 Culture Industry Special Purpose Company Ltd., C-FUND Subfund 2, Jakga Company Inc., Sidus Corporation, NW MEDIA CONTENTS INC., SpringCamp Early Stage Fund 4, Yiruike Information Technology (Beijing) Co., Ltd., Chengdu NCC Technology Corporation, NAVER Z Limited, STUDIO LICO Corp., SNOW China (Beijing) Co., Ltd., Studio JHS Co., Ltd., PAP Corporation, Super Labs Corporation, ZaiZai Entertainment Corp., Naver-Quantum Contents 1 Fund, Beijing Metaverse China Technology Corporation, NAVER BAND Inc, SNOW Japan Corporation, Broccoli Entertainment Corporation, N Visions Co., Ltd., Audiensori Corporation, Do Ventures Annex Fund, LP LOCUS X CORPORATION, Dongman Entertainment Corporation, Semicolon Studio Corp., Mun Pia Webtoon Culture Industry Special Purpose Company Ltd., NAVER WP I, L.P., NAVER Z USA, INC., M Contents Labs Co., Ltd., NAVER HANDS Corporation, Wattpad Inc, SNOW VIETNAM COMPANY LIMITED, NAVER Z JAPAN Corporation., Wattpad Webtoon Studios Inc., Sidus and Teu Entertainment Joint Stock Company, Namain Corp., Locus Shanghai Corporation, YLAB Japan Co., ltd, Wattpad Studios Inc, NF Insurance Services Corporation, V.DO INC., SNOW Inc., WP Technology (UK), Wattpad Studios (Cell Phone Swap) Inc., NAVER WP II, LLC, WP Technology Corporation, PROTON PARENT, INC., PROTON MERGER SUB, INC.				

* Based on the status of subsidiaries subject to consolidation in the business report, depending on whether they are major associate companies

1) The ownership structure of KREAM Corporation is in the form of exercising controlling power based on the shareholder structure, while the remaining 19 companies are owned with a majority of voting rights.

ESG Performance Indices

Environment

GREENHOUSE GAS (GHG) EMISSIONS			2020	2021	2022
Total GHG emissions[2]	**Total**	tCO_2e	**79,907**	**78,872**	**86,991**
	Green Factory		6,731	5,888	3,972
	1784[1]		-	1,636	9,889
	Connect One[1]		-	923	1,349
	NAVER Square[1]		-	693	683
	Leased business sites[1]		-	403	4,058
	Data Center GAK Chuncheon		73,176	69,329	67,040
Scope 1 emissions	Green Factory	tCO_2e	197	204	17
	1784		-	0	289
	Connect One		-	265	454
	NAVER Square		-	8	37
	Leased business sites		-	4	49
	Data Center GAK Chuncheon		33	44	44
Scope 2 emissions	Green Factory	tCO_2e	6,534	5,684	3,955
	1784		-	1,636	9,600
	Connect One		-	658	895
	NAVER Square		-	685	646
	Leased business sites		-	399	4,009
	Data Center GAK Chuncheon		73,143	69,286	66,996
GHG intensity	**Total**	tCO_2e/ Revenue (KRW billion)	**15.07**	**11.57**	**10.58**
	Green Factory		1.27	0.86	0.48
	1784		-	0.24	1.20
	Connect One		-	0.14	0.16
	NAVER Square		-	0.1	0.08
	Leased business sites1)		-	0.06	0.49
	Data Center GAK Chuncheon		13.8	10.17	8.16
Scope 3 emissions	**Total**	tCO_2e	-	215,157	209,708

ENERGY CONSUMPTION			2020	2021	2022
Total energy consumption	**Total**	TJ	**1,649**	**1,646**	**1,819**
	Green Factory		143	124	84
	1784		-	34	209
	Connect One		-	18	27
	NAVER Square		-	14	14
	Leased business sites		-	8	84
	Data Center GAK Chuncheon		1,506	1,448	1,401
Energy intensity	**Total**	TJ/ Revenue (KRW billion)	**0.31**	**0.24**	**0.22**
	Green Factory		0.03	0.02	0.01
	1784		-	0.00	0.03
	Connect One		-	0.00	0.00
	NAVER Square		-	0.00	0.00
	Leased business sites		-	0.00	0.01
	Data Center GAK Chuncheon		0.28	0.21	0.17

[1] GHG emissions for 1784, Connect One, NAVER Square, and leased facilities have been aggregated since 2021.

[2] Decimal place is not considered when calculating the emission and the energy consumption of each workplace. Therefore there may be differences from the total for each category.

ESG Performance Indices

Environment

			2020	2021	2022
DIRECT ENERGY CONSUMPTION					
	Total	TJ	**4.5**	**9.7**	**16.3**
LNG	Green Factory	TJ	3.9	1.9	0.3
LNG	1784	TJ	-	0.0	1.8
LNG	Connect One	TJ	-	5.2	8.9
LNG	NAVER Square	TJ	-	0.1	0.7
LNG	Leased business sites	TJ	-	0.1	1.0
LNG	Data Center GAK Chuncheon	TJ	0.4	0.5	0.4
Mobile combustion	1784	TJ	-	1.6	2.9
Mobile combustion	Data Center GAK Chuncheon	TJ	0.1	0.0	0.0
Diesel	Green Factory	TJ	0.0	0.0	-
Diesel	1784	TJ	-	0.0	-
Diesel	Connect One	TJ	-	0.0	0.0
Diesel	NAVER Square	TJ	-	0.0	-
Diesel	Data Center GAK Chuncheon	TJ	0.1	0.3	0.3
INDIRECT ENERGY CONSUMPTION					
	Total	TJ	**1,645**	**1,640**	**1,804.3**
Electricity	Green Factory	TJ	130	113	77.5
Electricity	1784	TJ	-	32	189.6
Electricity	Connect One	TJ	-	14	18.7
Electricity	NAVER Square	TJ	-	14	13.5
Electricity	Leased business sites	TJ	-	8	81.5
Electricity	Data Center GAK Chuncheon[3)]	TJ	1,506	1,448	1,400.0
Steam	Green Factory	TJ	9	8	6.6
Steam	1784	TJ	-	3	14.0
Steam	Leased business sites	TJ	-	-	2.9

			2020	2021	2022
GHG EMISSIONS REDUCTION					
	Total	tCO_2e	**-**	**16,967**	**17,414**
Saving of electricity for air-conditioning and heating by adopting geothermal energy	Green Factory	tCO_2e	-	28	2
Saving of electricity for air-conditioning and heating by adopting geothermal energy	1784	tCO_2e	-	716	2,264
Saving through renewable energy PPA	1784	tCO_2e	-	-	46
Saving by producing renewable energy	1784	tCO_2e	-	10	85
Saving by producing renewable energy	Connect One	tCO_2e	-	26	28
Saving by producing renewable energy	Data Center GAK Chuncheon	tCO_2e	99	98	95
Saving through office management	Data Center GAK Chuncheon	tCO_2e	7,709	6,726	6,197
Saving by adopting natural air-conditioning and ventilation facility	Data Center GAK Chuncheon	tCO_2e	10,963	9,363	8,697
RENEWABLE ENERGY CONSUMPTION					
	Total	MWh	**314**	**1,082**	**5,490**
Geothermal power	Green Factory	MWh	101	101	5
Geothermal power	1784	MWh	-	684	4,929
Solar power	1784	MWh	-	22	187
Solar power	Connect One	MWh	-	62	61
Solar power	Data Center GAK Chuncheon	MWh	213	213	207
RENEWABLE ENERGY PPA					
Renewable energy PPA	1784	MWh	-	-	101
Portion of renewable energy consumption	**Total**	%	**-**	**-**	**3.0**

[3)] Server operations have been reduced through the rebuilding of 10G network.

ESG Performance Indices

Environment

			2020	2021	2022
WATER CONSUMPTION STATUS					
Water Consumption	**Total**	m^3	**167,212**	**173,139**	**246,121**
Water withdrawal (Waterworks)	Green Factory	m^3	76,438	54,625	30,995
	1784	m^3	-	5,284	63,198
	Connect One	m^3	-	14,463	14,463
	Data Center GAK Chuncheon[4]	m^3	90,774	98,767	137,465
Water reuse	Green Factory	m^3	7,060	5,739	2,810
	1784	m^3	-	1,142	910
	Connect One	m^3	2,035	1,937	2,365
Water reuse rate	Green Factory	%	9	11	9
	1784	%	-	22	1
	Connect One	%	-	21	16
WASTE AND RECYCLING STATUS					
Weight of waste	**Total**	Ton	**233**	**145**	**282**
Domestic waste	Green Factory	Ton	170	84	49
Recycling waste	Green Factory	Ton	56	33	18
Domestic waste	1784	Ton	0	0	132
Recycling waste – Outsourcing	1784	Ton	0	0	54
Recycling waste – AI recycle	1784	Ton	-	-	2
Domestic waste	Connect One	Ton	9	8	9
Recycling waste	Connect One	Ton	-	2	3
Domestic waste	NAVER Square	Ton	-	10	6
Recycling waste	NAVER Square	Ton	-	0	0
Domestic waste	Data Center GAK Chuncheon	Ton	7	8	9
Recycling rate	Green Factory	%	25	28	27
	1784	%	0	0	30
	Connect One	%	-	16	25
	NAVER Square	%	-	4	4
OTHER ECO-FRIENDLY PERFORMANCE					
Portion of green product purchasing	**Total**	%	-	-	97[5]
FINES FOR NON-COMPLIANCE WITH ENVIRONMENTAL LAWS					
Green Factory		Case	0	0	0
		KRW	0	0	0
1784		Case	-	0	0
		KRW	-	0	0
Connect One		Case	0	0	0
		KRW	0	0	0
NAVER Square		Case	0	0	0
		KRW	0	0	0
Leased business sites		Case	0	0	0
		KRW	0	0	0
Data Center GAK Chuncheon		Case	0	0	0
		KRW	0	0	0

[4] In order to lower the cooling tower water temperature during the heatwave in 2022, municipal water supply was used.

[5] 97% based on the order count

ESG Performance Indices

Social

			2020	2021	2022
SOCIAL/HUMAN CAPITAL					
Total employment					
Total number of employees[1]		Person	4,103	4,696	4,963
By employment type	Full time	Person	3,904	4,403	4,670
	Male		2,503	2,811	2,864
	Female		1,401	1,592	1,806
	Part time		199	293	293
	Male		136	156	157
	Female		63	137	136
By job	Office	Person	1,717	1,949	2,215
	Male		697	750	818
	Female		1,020	1,199	1,397
	Technical		2,386	2,747	2,748
	Male		1,942	2,217	2,203
	Female		444	530	545
By gender	Male	Person	2,639	2,967	3,021
	Female		1,464	1,729	1,942
By age	Under 30	Person	1,109	1,354	1,260
	Over 30 to under 40		1,946	2,116	2,310
	Over 40 to under 50		1,015	1,161	1,292
	Over 50		33	65	101

			2020	2021	2022
RESPECT FOR DIVERSITY					
By nationality	Number of foreigners	Person	32	35	37
Overseas employment	Total number of employees at overseas business sites	Person	918	862	624
	Overseas expatriates		13	15	25
	Locally hired		905	847	599
Female talent	Percentage of female employees	%	36	37	39
	Percentage of female managers (leader position)		25	27	30
	Percentage of female executives (C-level)[2]		23	23	21
Special employment and minority	Employees with disabilities	Person	8	11	12[3]
	Patriots and veterans		23	25	24
NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER					
New employee hires[4]	Number of people hired	Person	700	838	599
By gender	Male	Person	482	562	318
	Female		218	276	281
By age	Under 30	Person	484	528	328
	Over 30 to under 40		180	280	250
	Over 40 to under 50		35	29	21
	Over 50		1	1	-
Employee turnover[5]	Total employee turnover	Person	133	247	280
	Employee turnover rate	%	3.9	4.4	6.1
By gender	Male	Person	105	171	211
	Female		28	76	69
By age	Under 30	Person	34	54	92
	Over 30 to under 40		77	135	144
	Over 40 to under 50		21	56	43
	Over 50		1	2	1

* Some figures have been adjusted due to changes in criteria compared to the previous year for the number of job changers, employees on maternity leave, and the C-level gender ratio.

1) Based on the year-end data, it includes regular employees, contract workers, dispatched workers, executives, and interns

2) Internal directors, GIO, CIC representatives, business representatives, and overall management are included

3) 3 individuals with severe disabilities are included (When the count of individuals with severe disabilities converted to 2, a total of 15)

4) Based on the number of full-time employees hired

5) Based on voluntary resignation of employees, there were 3 involuntary resignations (equvalent of 0.03%)

ESG Performance Indices

Social

			2020	2021	2022
PARENTAL LEAVE AND CHILDCARE LEAVE					
Number of people used parental leave[6]		Person	204	245	236
By gender	Male	Person	160	200	182
	Female	Person	44	45	54
Return to work rate after childbirth		%	100	100	100
Number of people used childcare leave		Person	138	109	116
By gender	Male	Person	32	21	27
	Female	Person	106	88	89
Return to work rate after childcare leave		%	99	100	99.1
Continue to work rate for 12 months after childcare leave		%	98.2	91.7	93.7
EVALUATION AND COMPENSATION					
Employees' performance evaluation participation rate		%	92.4	93.6	96.5
Portion of employees received stock grant[7]		%	-	100	100
EMPLOYEE TRAINING AND EDUCATION					
Total expenses in employee education and training[8]		KRW	3,389,730,833	3,677,543,896	4,868,018,509
Expenses in employee education and training per person		KRW	826,159	783,123	980,862
SAFETY & HEALTH[9]					
Number of people injured from Industrial accident		Person	4	1	2
Industrial accident rate		%	0.09	0.02	0.04
SUPPLIER MANAGEMENT					
Joint growth	Number of partners signed a fair trade agreement	Company	151	159	153
	Number of newly registered partners	Company	1,546	1,780	2,018

		1H 2022		2H 2022	
		No. of participants	Completion rate	No. of participants	Completion rate
INFORMATION SECURITY & PRIVACY PROTECTION					
Information security training for employees (once a year)		-	-	4,862	97.2%
Privacy protection training for employees (twice a year)[1]		4,653	98%	2,334	98%
By employment type	Full-time	4,401	99%	2,240	98%
	Executives	124	100%	80	100%
	Part-time	48	100%	11	100%
	Expatriates	19	95%	3	100%
	Interns	61	98%	-	-

* The completion rate is based on the total number of members at the time of conducting the training.

[1] For the first half of the year, it includes all members. For the second half of the year, it includes individuals who handle personal information.

Governance

		2020	2021	2022
Internal ethical regulation violation	Case	12	6	6
Measures taken for internal ethical regulation violation – Wage cut	Case	2	2	1
Measures taken for internal ethical regulation violation – Indemnification	Case	0	0	0
Measures taken for internal ethical regulation violation – Dismissal	Case	0	1	0
Measures taken for internal ethical regulation violation – Others	Case	10	3	5

* Some figures have been adjusted due to changes in criteria compared to the previous year for the number of job changers, employees on maternity leave, and the C-level gender ratio.

[6] Starting from 2022, the count includes individuals on spouse childbirth leave and pre/postnatal leave (divided into pre/postnatal parental leave).

[7] The ratio of recipients to eligible individuals, as well as the criteria for being eligible for and receiving stock grants, is based on the length of service at the time of granting.

[8] Starting from 2022, calculations are based on language, job-specific, general education, and recruitment expenses.

[9] It refers to the same number of submissions of the Industrial Accident Investigation Report as required by Article 57(3) of the Industrial Safety and Health Act and Article 73 of the Enforcement Decree of the same Act.

SASB Index

Topic	Code	Accounting Metric	Category	Unit	Link
Environmental footprint of hardware infrastructure	TC-IM-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	Quantitative	GJ, %	(1) Energy Consumption (p.143) (2) NAVER facilities utilize domestic commercial power, and grid electricity is not used. (3) Renewable Energy Consumption (p.144)
	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	Quantitative	m^2, %	(1) Water Withdrawal (Waterworks) (p.145) (2) Water Consumption (p.145), Water Resource Sensitivity Level (p.107)
	TC-IM-130a.3	Discussion of the integration of environmental considerations into strategic planning for data center needs	Discussion and Analysis	n/a	Creating Eco-friendly Workplace and Business Sites (p.106)
Data privacy, advertising standards & freedom of expression	TC-IM-220a.1	Description of policies and practices relating to behavioral advertising and user privacy	Discussion and Analysis	n/a	Information Security & Privacy Protection Activities (p.113-115) Building a Culture of Data Protection (p.116-118) Raising Data Protection Awareness and Building Trust (p.119)
	TC-IM-220a.2	Number of users whose information is used for secondary purposes	Quantitative	Number	0, NAVER does not use personal information for purposes other than those specified in the Privacy Policy provided during information collection. NAVER also does not provide or sell personal information to third parties without the consent of users.
	TC-IM-220a.3	Total amount of monetary losses as a result of legal proceedings associated with user privacy	Quantitative	KRW	0
	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	Quantitative	Number, %	Transparency Report Statistics (p.117)
	TC-IM-220a.5	List of countries where core products or services are subject to government-required monitoring, blocking, content filtering, or censoring	Discussion and Analysis	n/a	NAVER operates in compliance with the content-posting policy management standards of each country where it provides services, including South Korea.
Data security	TC-IM-230a.1	(1) Number of data breaches, (2) percentage involving personally identifiable information (PII), (3) number of users affected	Quantitative	Number, %	0, The AdPost receipt email mis-delivery incident that occurred in 2019 is the only incident of personal information leakage involving NAVER.
	TC-IM-230a.2	Description of approach to identifying and addressing data security risks, including use of third-party cybersecurity standards	Discussion and Analysis	n/a	Information Security & Privacy Protection Activities (p.113-115) Service Security Risk Management (p.114)
Employee recruitment, inclusion & performance	TC-IM-330a.1	Percentage of employees that are foreign nationals	Quantitative	%	Respect for Diversity (p.146)
	TC-IM-330a.2	Employee engagement as a percentage	Quantitative	%	Diagnosis of Organizational Effectiveness (p.74)
	TC-IM-330a.3	Percentage of gender and racial/ethnic group representation for (1) management, (2) technical staff, and (3) all other employees	Quantitative	%	Human Capital (p.146)
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	Quantitative	KRW	0, There were no instances of “monetary losses” incurred during the 2022 fiscal year as a result of “legal proceedings” stemming from “anti-competitive practices”.

GRI Index

GRI Standards	No.	Title	Reporting Location	
UNIVERSAL STANDARDS				
General Disclosures 2021	2-1	Organizational details	• NAVER at a Glance	p.14
	2-2	Entities included in the organization's sustainability reporting	• About This Report • NAVER at a Glance	p.2
	2-3	Reporting period, frequency and contact point	• About This Report	p.2
	2-4	Restatements of information	• No significant change	
	2-5	External assurance	• About This Report • Third Party's Assurance Statement & IR Information	p.2 p.156
	2-6	Activities, value chain and other business relationships	• Team NAVER - Business Model • Team NAVER – Today • Team NAVER - Tomorrow	p.22 p.23 p.39
	2-7	Employees	• ESG Performance Indices – Social – Employment	p.146
	2-8	Workers who are not employees	• ESG Performance Indices – Social – Employment	p.146
	2-9	Governance structure and composition	• Composition and Independence of the BOD • Operations of the BOD • NAVER's ESG Governance	p.94 p.6 p.48-49
	2-10	Nomination and selection of the highest governance body	• Composition and Independence of the BOD • Operations of the BOD • NAVER's ESG Governance	p.94 p.96 p.96-97
	2-11	Chair of the highest governance body	• Composition of the Board	p.95
	2-12	Role of the highest governance body in overseeing the management of impacts	• Composition and Independence of the BOD • NAVER's ESG Governance	p.94 p.48-49
	2-13	Delegation of responsibility for managing impacts	• NAVER's ESG Governance	p.48-49
	2-14	Role of the highest governance body in sustainability reporting	• NAVER's ESG Governance	p.48-49
	2-15	Conflicts of interest	• Composition and Independence of the BOD • Appointment of Directors and Prevention of Conflicts of Interest • Operations of the BOD	p.94-95 p.96 p.96-97

GRI Standards	No.	Title	Reporting Location	
UNIVERSAL STANDARDS				
General Disclosures 2021	2-16	Communication of critical concerns	• Operations of the BOD • Company-wide Risk Management System	p.96-97 p.127-128
	2-17	Collective knowledge of the highest governance body	• Operations of the BOD	p.96-97
	2-18	Evaluation of the performance of the highest governance body	• Evaluation and Compensation of the BOD • Management Performance Evaluation and Compensation	p.98 p.92-93
	2-19	Remuneration policies	• Evaluation and Compensation of the BOD	p.98
	2-20	Process to determine remuneration	• Evaluation and Compensation of the BOD • Management Performance Evaluation and Compensation	p.98 p.92-93
	2-21	Annual total compensation ratio	• CEO-to-Employee Compensation Ratio	p.93
	2-22	Statement on sustainable development strategy	• Letter to Stakeholders	p.13
	2-23	Policy commitments	• Human-centered Policy • Fair Trade Compliance Program	p.69 p.132
	2-24	Embedding policy commitments	• Status of NAVER's Human Rights Management	p.70-71
	2-25	Processes to remediate negative impacts	• Company-wide Risk Management System • Case Story	p.127-128 p.128
	2-26	Mechanisms for seeking advice and raising concerns	• Business Ethics Counseling and Whistleblowing • Building sustainable supply chain ecosystem - Improving Fair Trade and Sustainability of Purchasing Partners	p.132-133 p.80
	2-27	Compliance with laws and regulations	• Business Report – Matters related to sanctions • SASB Index - Intellectual property protection & competitive behavior – Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	p.148
	2-28	Membership associations	• Awards & Membership	p.158
	2-29	Approach to stakeholder engagement	• Stakeholder Engagement and Communication	p.50-51
	2-30	Collective bargaining agreements	• Fair Employment and Labor-Management Relations	p.71

GRI Index

GRI Standards	No.	Title	Reporting Location	
UNIVERSAL STANDARDS				
Material Topics 2021	3-1	Process to determine material topics	• Materiality Analysis Process	p.54
	3-2	List of material topics	• 2022 Material Topics	p.54-55
	3-3	Management of material topics	• ESG Framework • Stakeholder Engagement and Communication • Management of Material Topics	p.46-47 p.50-51 p.56
		-Data security and privacy	• Information Security & Privacy Protection Management System	p.111-112
		-User protection and service responsibility	• NAVER Green Internet	p.124-126
		-Strengthening of global competitiveness	• Establishing a platform for ESG value creation • Team NAVER – Today • Team NAVER - Tomorrow	p.59-61 p.23-38 p.39-44
		-Respect for human rights	• Human-centered Policy	p.69-71
		-Response to climate change	• Striving to Reduce Carbon Emissions • Creating Eco-friendly Workplace and Business Sites	p.101-105 p.106-108
		-Business ethics and compliance	• NAVER's Ethics and Compliance Management • Responsible Tax Management	p.130-133 p.134

GRI Standards	No.	Title	Reporting Location	
TOPIC STANDARDS				
ECONOMY				
Economic Performance	201-1	Direct economic value generated and distributed	• Value Sharing with Our Stakeholders • Financial Highlights	p.52 p.136-142
	201-2	Financial implications and other risks and opportunities due to climate change	• TCFD Report	🔗
Indirect Economic Impacts	203-1	Infrastructure investments and services supported	• NAVER Project Flower • Growing Together with Local Community • NAVER D-Commerce Report 2022	p.82 p.84-87 🔗
	203-2	Significant indirect economic impacts	• NAVER Project Flower • Value Sharing with Our Stakeholders • NAVER D-Commerce Report 2022	p.82 p.52 🔗
Anti-corruption	205-2	Communication and training about anti-corruption policies and procedures	• NAVER's Ethics and Compliance Management • Employee Anti-corruption Education and Integrity Education	p.130-132 p.133
	205-3	Confirmed incidents of corruption and actions taken	• NAVER's Ethics and Compliance Management	p.130-133
Tax	207-1	Approach to tax	• Responsible Tax Management	p.134
	207-2	Tax governance, control, and risk management	• Responsible Tax Management - Tax Risk Management	p.134
	207-3	Stakeholder engagement and management of concerns related to tax	• Responsible Tax Management	p.134

GRI Index

GRI Standards	No.	Title	Reporting Location	
TOPIC STANDARDS				
ENVIRONMENT				
Energy	302-1	Energy consumption within the organization	• ESG Performance Indices - Environment – Energy Consumption	p.143
	302-2	Energy consumption outside of the organization	• ESG Performance Indices - Environment – Energy Consumption	p.143
	302-3	Energy intensity	• ESG Performance Indices - Environment – Energy Consumption	p.143
	302-4	Reduction of energy consumption	• ESG Performance Indices - Environment – Energy Consumption • Accomplishing 2040 Carbon Negative	p.143 p.99-108
Water and Effluents	303-3	Water withdrawal	• ESG Performance Indices - Environment – Water Withdrawal	p.145
	303-5	Water discharge	• ESG Performance Indices - Environment – Water Consumption	p.145
Emissions	305-1	Direct (Scope 1) GHG emissions	• ESG Performance Indices - Environment – GHG Emissions	p.143
	305-2	Energy indirect (Scope 2) GHG emissions	• ESG Performance Indices - Environment – GHG Emissions	p.143
	305-5	Reduction of GHG emissions	• ESG Performance Indices - Environment – GHG Emissions • Accomplishing Carbon Negative 2040 • TCFD Report	p.143 p.101-105 🔗
Waste	306-3	Waste generated	• ESG Performance Indices - Environment – Waste and Recycling	p.145
	306-4	Waste diverted from disposal	• ESG Performance Indices - Environment – Waste and Recycling	p.145

GRI Standards	No.	Title	Reporting Location	
TOPIC STANDARDS				
SOCIAL				
Employment	401-1	New employee hires and employee turnover	• ESG Performance Indices – Social – Employment	p.146
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	• Employee Welfare and Well-Being • Workplace Mental Health Program in the Post-COVID Era	p.72-73
	401-3	Parental leave	• ESG Performance Indices – Social – Parental Leave & Childcare Leave	p.147
Labor/ Management Relations	402-1	Minimum notice periods regarding operational changes	• At least 30 days in advance	
Occupational Health and Safety	403-3	Occupational health services	• Employee Health & Safety Policy and Management Activities	p.72-73
	403-4	Worker participation, consultation, and communication on occupational health and safety	• Employee Health & Safety Policy and Management Activities	p.72-73
	403-6	Promotion of worker health	• Employee Health & Safety Policy and Management Activities • Employee Welfare and Well-Being	p.72-73
Training and Education	404-1	Average hours of training per year per employee	• Employee Competency Building and Talent Development	p.68
	404-2	Programs for upgrading employee skills and transition assistance programs	• Employee Competency Building and Talent Development	p.66-68
	404-3	Percentage of employees receiving regular performance and career development reviews	• Employee Performance Evaluation and Compensation	p.64-65
Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	• Composition and Independence of the BOD • Respecting Diversity in the Workplace • ESG Performance Indices – Social – Employment	p.94-95, 97 p.75 p.146
	405-2	Ratio of basic salary and remuneration of women to men	• Business Report • Respecting Diversity in the Workplace	🔗 p.75
Human Rights Assessment	412-2	402-1 Employee training on human rights policies or procedures	• Human Rights Training • Compliance Program Implementation and Training Performance in 2022	p.71 p.131
Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	• NAVER Project Flower • Growing Together with Local Community • NAVER D-Commerce Report 2022	p.82-83 p.84-87 🔗
Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	• Transparency Report Statistics	p.117

GHG Verification Statement

Scope 1&2

Verification Scope

Korean Standards Association has conducted verification for domestic GHG emissions based on GHG report provided by NAVER Corporation which includes Scope 1 and Scope 2 emissions.

Verification Standards and Guidelines

To conduct verification activities, verification team applied verification standards and guidelines. The standards and guidelines are as follows.

- Guidance for reporting and verification of GHG emissions trading scheme (attached on the right)
  (No. 2022-279 provided by Ministry of Environment, Republic of Korea)
- ISO 14064-1, 3 : 2006
- 2006 IPCC Guidelines for National Greenhouse gas Inventories

Level of Assurance

NAVER Corporation's GHG emissions satisfies the under Reasonable Assurance (less than ±5.0% of total emissions).

Verification Conclusion

As a result of verification activities, verification team has found no significant errors, omissions, and misstatements. Therefore, Korean Standards Association confirms that following emissions data are adequately quantified.

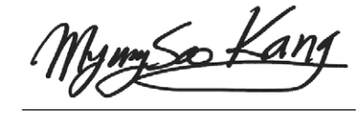
2022 Emissions

(Unit: tCO_2eq)

No.	Business Site	GHG Emissions		
		Scope 1	Scope 2	Total
1	DateCenter GaK(Chuncheon)	44.398	66,995.736	67,040
2	GreenFactory	17.684	3,955.071	3,972
3	ConnectWin	454.519	895.026	1,349
4	Partner Square	37.707	645.865	683
5	Leased businesses	18.824	310.872	329
6	1784	289.137	9,600.048	9,889
7	Tech1 Tower	31.201	3,697.883	3,729
	Total	893.471	86,100.501	86,991

※ Decimal place is not considered when calculating the emission of each workplace.

Aug 17, 2023



GHG Verification Statement

Scope 3

1. Verification Goal

The goals of greenhouse gas (GHG) emission verification (hereinafter referred to as 'verification') conducted by the Korean Standards Association are as follows.

- Confirming the conformity with standards and procedures of GHG emission and GHG emissions calculated within the scope of verification
- Checking the validity of declarations related to the organization's GHG emissions or removals
- Confirming the effective implementation of the organization's management of GHG emissions or removals
- Confirming the conformity of processes for implementing, managing and improving the organization's GHG emissions or removals estimates

2. Verification Scope

Korea Standards Association conducted verification of Scope 3 for Greenhouse Gas Declaration of NAVER Corporation.

- Boundary : Scope3
  * Category 1. Purchased Goods and Services (Top 75% of cumulative ratio, 25% of purchase amount ratio)
    Category 2. Capital Goods (Top 75% of cumulative ratio, 25% of purchase amount ratio)
    Category 3. Fuel-and energy-related activities not included in Scope 1 or 2 (Business sites under operational control)
    Category 4. Upstream Transportation and distribution (Top 80% of Purchased Date)
    Category 5. Waste generated in operations (Directly owned business other than leased business)
    Category 6. Business travel (Domestic and international business trip)
    Category 7. Employee commuting (Employee commuting and telecommuting)
    Category 8. Upstream leased assets (Warehouse among leased assets)
    Category 9. Downstream Transportation and distribution (Transportation of Clova Clock)
    Category 11. Use of sold products (Use of Clova Clock)
    Category 12. End-of-life treatment of sold products (Disposal of Clova Clock)
    Category 13. Downstream leased assets (Rental property)
    Category 15. Investments (Including subsidiaries)
- Year : 2022

3. Verification Criteria and Guidelines

Korean Standards Association conducted verification according to international standards and the standards and guidelines of the National Institute of Environmental Research.

- ISO 14064-1,3 : 2006
- Guidelines for reporting and certification of emissions from the GHG Emissions Trading System (Notification of the Ministry of Environment: No. 2022-279)
- 2006 IPCC Guidelines for National Greenhouse Gas Inventories
- WRI (World Resources Institute) Greenhouse Gas Protocol
- The Corporate Value Chain (Scope 3) Accounting and Reporting Standard

4. Level of assurance verification and Responsibility

Korea Standards Association provides verification at limited level of assurance to strengthen GHG management for your company's GHG emissions.

5. Verification Limit

GHG emissions can be affected by factors such as data limits and uncertainties in the scope of verification, and inherent limitations may exist accordingly.

6 Verification Conclusion

No errors or false facts were found in NAVER Corporation's GHG emissions verified through the ISO 14064-3 verification procedure within the scope of verification.

Appendix. GHG emission in 2022

Categories	GHG Emissions (tCO_2eq)	Proportion (%)
1. Purchased Goods and Services 2. Capital Goods	83,825.589	39.973
3. Fuel-and energy-related activities (not included in Scope 1 or 2)	7,137.104	3.403
4. Upstream Transportation and distribution	10.215	0.005
5. Waste generated in operations	248.641	0.119
6. Business travel	453.209	0.261
7. Employee commuting	2,034.900	0.970
8. Upstream leased assets	39.839	0.019
9. Downstream Transportation and distribution	2.339	0.001
11. Use of sold products	11,392.236	5.432
12. End-of-life treatment of sold products	131.429	0.063
13. Downstream leased assets	423.562	0.202
15. Investments	104,009.072	49.597
Total	**209,708**	**100.00%**

Note: There is a difference between the total amount of emissions for each business site and total amount of emissions by types because when GHG emission is calculated, decimal point is round down.

June 19, 2023

GHG Verification Statement

Voluntary Reduction

Verification Scope

Korean Standards Association(KSA) has conducted verification for Greenhouse gas(GHG) reduction (hereinafter referred to as 'verification') based on supporting data and other documents related to the 'GHG Reduction Project' requested by NAVER Corporation.

- Reduction Period: January 1, 2022 - December 31, 2022
- Applied Methodology
  - Guidelines on the operation of the target management of greenhouse gases in the public sector (Ministry of Environment No. 2022-58) [Attachment 7] Methodology for calculating greenhouse gas reduction for external reduction projects
  - Guidelines for reporting and certification of emissions from the GHG Emissions Trading System (Notification of the Ministry of Environment: No. 2022-279)
- Evidence data: Performance report for NAVER Corp. reduction(including evidence data) and other documents

No.	Project Name	Applied Methodology
1	1784 Geothermal System GHG Reduction Project * NAVER 1784 Building Energy Saving Technology by Installing a New Geothermal System	[Attachment 7] 002. Geothermal heat supply
2	1784 Solar Power GHG Reduction Project * Energy saving technology of Naver 1784 office building by installing solar power facilities	[Attachment 7] 001. Renewable energy generation (solar)
3	1784 GHG Reduction Project under the Electricity Transaction Contract between Third Parties * Reducing greenhouse gases at 'Naver 1784' sites through the use of renewable energy electricity generated by solar power plants (1.49564 MW)	Guidelines 'Article 18. Excluding calculation of emissions'
4	Green Factory Geothermal System GHG Reduction Project * A technology to save energy in the Green Factory building by installing a new geothermal system	[Attachment 7] 002. Geothermal heat supply
5	CONNECT ONE Solar Power GHG Reduction Project * Technology to reduce greenhouse gases by producing renewable energy through installation of photovoltaic power generation facilities	[Attachment 7] 001. Renewable energy generation (solar)
6	DATA CENTER GAK Chuncheon Solar Power GHG Reduction Project * Technology to reduce greenhouse gases by producing renewable energy through installation of photovoltaic power generation facilities	[Attachment 7] 001. Renewable energy generation (solar)
7	DATA CENTER GAK Chuncheon High Efficiency Lighting Equipment GHG Reduction Project * Technology to reduce greenhouse gases by installing high-efficiency lighting equipment (LED lights)	[Attachment 7] 006. Replacing high-efficiency lighting equipment
8	DATA CENTER GAK Chuncheon High Efficiency Transformer Greenhouse Gas Reduction Project * Technology to reduce greenhouse gases by installing high-efficiency transformers (amorphus transformers)	[Attachment 7] 007. High efficiency facility replacement
9	DATA CENTER GAK Chuncheon Outdoor Cooling GHG Reduction Project * Technology to save energy by installing outside air cooling facilities (using natural energy)	[Attachment 7] 007. High efficiency facility replacement
10	DATA CENTER GAK Chuncheon Inverter GHG Reduction Project * Technology to reduce greenhouse gases by installing high-efficiency facilities (inverters)	[Attachment 7] 007. High efficiency facility replacement

Verification Standards and Guidelines

KSA performed verification based on risk assessment, data analysis, and sampling by applying and referring to the following standards and guidelines.

- Guidelines for reporting and certification of emissions from the GHG Emissions Trading System (Notification of the Ministry of Environment: No. 2022-279)
- ISO 14064-2, 3 : 2006
- 2006 IPCC Guidelines for National Greenhouse gas Inventories

Level of Assurance Verification and Responsibility

KSA provides verification at limited level of assurance. NAVER Corp. is responsible for calculating, preparing, and fairly submitting the amount of GHG reduction, and KSA is limited to guaranteeing the amount of GHG reduction.

Verification Limit

KSA performed verification by sampling the related reports, information, and data presented by NAVER Corp. which has its own limit. Although the verification team has tried to conduct a faithful evaluation that meets the evaluation criteria, there are potential limits that errors, omissions, and false statements could be found.

Verification Conclusion

The verification team confirmed the appropriateness of business boundaries, baseline scenarios, data and reduction calculations, and confirmed that no significant errors, omissions, or false facts were found.

Amount of GHG Reduction (Period : 2022/01/01 ~ 2022/12/31)

(Unit : tCO_2eq/yr)

No.	Project Name	GHG Reduction
1	1784 Geothermal System GHG Reduction Project	2,264
2	1784 Solar Power GHG Reduction Project	85
3	1784 GHG Reduction Project under the Electricity Transaction Contract between Third Parties	46
4	Green Factory Geothermal System GHG Reduction Project	2
5	CONNECT ONE Solar Power GHG Reduction Project	28
6	DATA CENTER GAK Chuncheon Solar Power GHG Reduction Project	95
7	DATA CENTER GAK Chuncheon High Efficiency Lighting Equipment GHG Reduction Project	69
8	DATA CENTER GAK Chuncheon High Efficiency Transformer Greenhouse Gas Reduction Project	180
9	DATA CENTER GAK Chuncheon Outdoor Cooling GHG Reduction Project	8,697
10	DATA CENTER GAK Chuncheon Inverter GHG Reduction Project	5,948

June 19, 2023

GHG Verification Statement

GHG Reduction Effect

Verification Scope

Korean Standards Association(KSA) has conducted verification for Greenhouse gas(GHG) reduction technology and GHG reduction effect(hereinafter referred to as 'verification') based on supporting data and other documents related to the 'GHG Reduction Project' requested by NAVER Corporation.

- Applied Period
  - Using Electronic Documents to reduce the use of Printed Paper: January 1, 2022 - December 31, 2022
  - Use of multi-use cups to reduce the use of disposable cups: April 1, 2022 - December 31, 2022
- Evidence data: Performance report for NAVER Corp. reduction including evidence data)

No.	Project	Calculation Methodology
1	Using electronic documents to reduce the use of printed paper	Calculate the amount of GHG reduction by subtracting the amount of emissions after carrying out the multi-use cup project from the amount of emissions before the project
2	Use of multi-use cups to reduce the use of disposable cups	Calculation of social reduction of GHG by subtracting emissions after carrying out electronic document service use project from pre-business emissions

Verification Standards and Guidelines

KSA performed verification based on risk assessment, data analysis, and sampling by applying and referring to the following standards and guidelines.

- Guidelines for reporting and certification of emissions from the GHG Emissions Trading System (Notification of the Ministry of Environment: No. 2022-279)
- ISO 14064-2, 3 : 2006
- 2006 IPCC Guidelines for National Greenhouse gas Inventories

Level of Assurance Verification and Responsibility

KSA provides verification at limited level of assurance. NAVER for calculating, preparing, and fairly submitting the amount of KSA is limited to guaranteeing the amount of GHG reduction.

Verification Limit

KSA performed verification by sampling the related reports, information, and data presented by NAVER Corp. which has its own limit. Although the verification team has tried to conduct a faithful evaluation that meets the evaluation criteria, there are potential limits that errors, omissions, and false statements could be found.

Verification Conclusion

The verification team confirmed the appropriateness of business boundaries, baseline scenarios, data and reduction calculations, and confirmed that no significant errors, omissions, or false facts were found.

GHG Reduction Effect

(Unit : tCO_2eq/yr)

No.	Project	GHG Reduction Effect
1	Using Electronic Documents to reduce the use of Printed Paper * Period: Jan. 1, 2022 ~ Dec. 31. 2022	1,294
2	Use of multi-use cups to reduce the use of disposable cups * Period: Apr. 1, 2022 ~ Dec. 31. 2022	8

June 19, 2023

Third Party's Assurance Statement

NAVER Corporation ("the Company" or "NAVER") commissioned DNV Business Assurance Korea, Ltd. ("DNV", "we" or "us"), part of DNV Group, to undertake independent assurance of the 'NAVER INTEGRATED REPORT 2022 (the "Report")'.

Our Opinion

On the basis of the work undertaken, nothing came to our attention to suggest that the Report does not properly describe NAVER's adherence to the Assurance Principles described below. In terms of reliability of the performance data, nothing came to our attention to suggest that these data have not been properly collated from information reported at operational level, nor that the assumptions used were inappropriate. We believe that NAVER is reporting in accordance with the GRI Standards.

We have reviewed that the topic-specific disclosures of GRI Sustainability Reporting Standards 2021 which are identified in the process for defining report content;

No.	Material Topic	Topic Standard
1	Data security and privacy	418-1
2	User protection and service responsibility	417-2
3	Strengthening of global competitiveness	201-1
4	Respect for human rights	405-1, 412-2
5	Response to climate change	302-4
6	Business ethics and compliance	205-3

Without affecting our assurance opinion, we also provide the following observations:

- **The Principle of Inclusivity**
  NAVER defines customers, employees, investors and shareholders, partners, local communities, and the government as their major stakeholder groups and provides various participation and communication channel for them. NAVER reports on each group's interests and related responses, and explains the major interests identified in connection with NAVER's 7 ESG Management Strategies. In addition, NAVER well explains that the major interests of stakeholders had applied in the materiality assessment process, and it is considered in the company's key policies.

- **The Principle of Materiality**
  Based on diverse standards and resources, NAVER has identified a pool of 20 specific issues relevant to the Company. NAVER evaluated the business and stakeholder's impact based on the derived issue pool and, a double materiality assessment taking into consideration the social and environmental impacts of the external environment on business activities was conducted to identify the 6 most significant material topics to be reported. NAVER identified the importance of each issue from various sources, and newly added issues reflecting the latest ESG trends were reviewed and reflected in the report. DNV have reviewed the materiality assessment process and noted relevant material topics prioritized from the process are addressed in the report.

- **The Principle of Responsiveness**
  NAVER upgraded the 'NAVER's 7 ESG Management Strategies' in 2022 as an active response to rapidly changing business environment and regulations surrounding corporate sustainability. NAVER presents mid to long-term goals and action plans for each ESG strategy along with reporting responsiveness according to the existing ESG strategy in the report. NAVER expanded the ESG Working Group to effectively achieve its sustainability management through the new strategies, which DNV expects to communicate not only to achieve ESG strategic tasks but also to discovers future agenda that can contribute to creating social values.

- **The Principle of Impact**
  NAVER discloses in detail the background of the issues selected and progress on the management of material topics that reflect stakeholders' interests and expectations. DNV confirmed that the material topics selected through the materiality assessment were completely reflected according to the physical and periodic reporting boundaries. DNV expects NAVER to quantify and present specific performance on new ESG strategic tasks and action plans in future reporting.

- **Reliability of Specific Sustainability Performance Information**
  DNV conducted a review of compliance with the principles of AA1000AP (2018) of the Report as described above (Type 1 verification). In addition, we have reviewed the reliability of the disclosure data (Type 2 verification) – 'energy consumption savings'. The assurance team has sampled data and tested accuracy and reliability of the sustainability performance data of the Company and interviewed the responsible for the subject data handling and reviewed the data gathering process with the supporting documents and records. Based on the test, there were no intentional errors or misstatements found. Data owners were able to demonstrate to trace the origin of the data and to interpret the processed data in a reliable manner. The data was identifiable and traceable. The Company reports the sustainability performance of the last three years and can be compared over time. Any errors or unclear expressions found during the verification process were corrected prior to the publication of the Report.

Third Party's Assurance Statement

Scope and Approach

We performed our work using AA1000AS v3, Assurance Standard set for by AccountAbility, and DNV's assurance methodology VeriSustain™ (Ver. 5.0) which is based on our professional experience, international assurance best practices including the International Standard on Assurance Engagements 3000 ("ISAE 3000"), and the Global Reporting Initiative Sustainability Reporting Standards ("GRI Standards"). DNV provides Type 1 and the moderate assurance. But some part of performance data has been verified by Type 2 as described above.

The engagement excludes the sustainability management, performance and reporting practices of NAVER's subsidiaries, associated companies, suppliers, contractors and any third-parties mentioned in the Report. We did not interview external stakeholders as part of this assurance engagement. Economic performance based on the financial data is crosschecked with internal documents, the audited consolidated financial statements and the announcement disclosed at the website of Korea Financial Supervisory Service (http://dart.fss.or.kr) as well as NAVER's website (www.navercorp.com). The review of financial data taken from these sources is not within the scope of our work.

We planned and performed our work to obtain the evidence we considered necessary to provide a basis for our assurance opinion. We are providing a 'limited level' of assurance. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the company were applied. The baseline data for environmental and social performance are not verified, while the aggregated data at the corporate level are used for the verification.

Basis of Our Opinion

The assurance was carried out on June 2023. We undertook the following activities as part of the assurance process:

- Challenged the sustainability-related statements and claims made in the Report and assessed the robustness of the underlying data management system, information flow and controls;
- Site visits to NAVER HQ in Seongnam, Korea to review process and system for preparing sustainability data and implementation of sustainability strategy.
- Conducted interviews with representatives from the ESG team;
- Conducted document reviews, data sampling and interrogation of supporting databases and associated reporting system as they relate to selected content and performance data;
- Reviewed the process and the result of materiality assessment.

For and on behalf of DNV Business Assurance Korea Ltd.
Seoul, Korea
June, 2023

AA1000
Licensed Report
000-10/V3-64XIQ

Sang Yeon Park	Jae Hee Kim	Chang Rok Yun
Senior Auditor and Lead Auditor	Senior Auditor	Technical Reviewer

Responsibilities of the Directors of NAVER and DNV

The Directors of NAVER have sole responsibility for the preparation of the Report. Our statement represents our independent opinion and is intended to inform all stakeholders. DNV was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. DNV's assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review have been provided in good faith. DNV expressly disclaims any liability or coresponsibility for any decision a person or an entity may make based on this Independent Assurance Statement.

Competence and Independence

DNV's established policies and procedures are designed to ensure that DNV, its personnel and, where applicable, others are subject to independence requirements (including personnel of other entities of DNV) and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. This engagement work was carried out by an independent team of sustainability assurance professionals.

DNV - Business Assurance

DNV Business Assurance Korea Ltd. is part of DNV Group, a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance.
www.dnv.co.kr/assurance

Awards

2018. 06	• Ranked the highest in the Win-Win Growth Index Evaluation for the second consecutive year (National Commission for Corporate Partnership)
08	• Papago, Whale and NAVER Maps received awards in the Communication Category (Red Dot Award)
09	• LICO received the Grand Prize in the New Media Content category at BCWW2018 for its web animation "A Day Before Us"
10	• Received awards for six types of products, including CLOVA Friends, in four categories (IDEA) • Chosen as sixth place by FORTUNE in The Future 50 (FORTUNE)
11	• NAVER and NAVER LABS received awards for four products at the CES 2019 Innovation Award • NAVER Business Platform received the Minister's Award at the Grand Cloud Conference (Ministry of Science and ICT) (Commendation from the Minister for merit in developing the cloud industry)
2019. 02	• Won six design awards (iF Design Award) • V LIVE original live format received an award in the Music Category (Media Excellence Awards)
06	• Ranked the highest in the Win-Win Growth Index Evaluation for the third consecutive year Named Best Honorary Company for the first in the Internet platform industry (National Commission for Corporate Partnership)
09	• Chosen as Korea's Best Job (Ministry of Employment and Labor)
10	• Received an appreciation plaque in the 2019 Korea Small Business Contest • Six products, including NAVER WORKS and CLOVA Clock, received Japan's Good Design Award • Received the Presidential Citation in the Voluntary Win-Win Cooperation category at the Win-Win Week Ceremony (Ministry of SMEs and Startups, National Commission for Corporate Partnership)
12	• Received the Best Company Award for three years in a row in the Korea Win-Win Awards (National Commission for Corporate Partnership)
2020. 02	• Won three design awards (iF Design Award)
08	• Won the Gold Award (LACP Vision Awards)
09	• Won the Grand Award in the PDF Version of Annual Report Category (ARC Awards) • Ranked the highest in the Win-Win Growth Index Evaluation for the fourth consecutive year (National Commission for Corporate Partnership)
11	• Ranked 37th at The World's Best Employers 2020 (Forbes) • Chosen as 33rd place by FORTUNE in The Future 50 (FORTUNE)
12	• Recognized with Minister's Commendation for Policy Communication (Ministry of the Interior and Safety) • CLOVA Lamp received CES Innovation Awards
2021.09	• Ranked the highest in the Win-Win Growth Index Evaluation for the fifth consecutive year (National Commission for Corporate Partnership) • Won the Platinum Award (LACP Vision Awards) • Won the Grand Award in the Specialized Annual Report Category (ARC Awards) • CLOVA Lamp received Gold Award (IDEA)
10	• NAVER Cloud and LINE WORKS received Japan's Good Design Award
11	• Awarded at the first sustainability report category in the Korean Readers' Choice Awards (Korea Productivity Center)
12	• Received the Best Company Award in the Win-Win Growth Index Evaluation (National Commission for Corporate Partnership)
2022. 08	• Won the Platinum and Gold Awards (LACP Vision Awards) • Won the Honors Award in the Integrated Report Category (ARC Awards)
11	• Awarded at the sustainability report category in the Korean Readers' Choice Awards (Korea Productivity Center)
12	• Received the Best Award at the communication category in the Korea ESG Management Award • Awarded at the sustainability report category in the Global Standard Management Award (Korea Management Registrar) • Awarded at the sustainability report category in the Sustainability Contest (Korea Standards Association) • Ranked the highest in the Win-Win Growth Index Evaluation for the sixth consecutive year (National Commission for Corporate Partnership)

NAVER