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Business Report

(The 8th Period)

Business Year	January 1, 2024	Starting Date
	December 31, 2024	End Date

Respectfully submitted to

Financial Services Commission, the Korea
Exchange

March 18, 2025

Type of Corporation Subject to Submission:	Stock-listed Corporation

Reason for Exemption:	Not applicable

Company Name:	SK chemicals Co., Ltd.

Chief Executive Officer:	Ahn Jae Hyun

Head Office:	310 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do (Phone) 02-2008-2008 (Website) http://www.skchemicals.com

Principal Officer:	(Position) Head of Finance (Name) Jeong Hae-wook (Phone) 02-2008-2008

【Confirmation of the Chief Executive Officer and Other Executives】

Statement of Confirmation

We, as the chief executive officer and the director in charge of reporting of the Company, have directly reviewed and examined the contents of this disclosure document with due care. As a result, we confirm that there are no omissions or false statements regarding material matters, and that the contents of this disclosure document do not contain any statements that may cause a material misunderstanding for those who use the information stated or indicated in this disclosure document.

Furthermore, we confirm that the Company has prepared and is operating an internal accounting control system in accordance with the provisions of Article 8 of the Act on External Audit of Stock Companies, Etc.

2025.03.18

[SK chemicals Co., Ltd.]

CEO [Ahn Jae Hyun]

Director in Charge of Reporting [Jeong Hae OK]

I. Overview of the Company

1. Company Overview

A. Overview of the Consolidated Subsidiaries

1) Status of the Consolidated Subsidiaries (Summary)

(Unit: company)

Classification	Number of Consolidated Companies				Number of Major Subsidiaries
	Beginning of period	Increase	Decrease	End of period	
Listed	1	-	-	1	1
Unlisted	10	4	1	13	5
Total	11	4	1	14	6

※ For detailed status, refer to 'Detailed Table-1 Consolidated Subsidiaries.'

2) Changes in the Consolidated Companies

Classification	Subsidiaries	Reason
Newly consolidated	SK bioscience Germany GmbH	New Equity Investment
	IDT Biologika GmbH	New Acquisition
	IDT Biologika Corporation	New Acquisition
	Technik-Energie-Wasser Servicegesellschaft mbH	New Acquisition
Excluded from consolidation	SK chemicals (Suzhou) Co., Ltd.	Equity Sale
	-	-

B. Legal and Commercial Name of the Company

The Company's name is 'SK Chemicals Co., Ltd.', which in Korean is noted as '에스케이케미칼 주식회사', and in English as 'SK CHEMICALS CO., LTD.'

C. Date of Establishment & Survival Period

The Company is a split-off company newly established on December 1, 2017 through the split-off of the Green Chemicals and Life Science business divisions previously operated by SK Discovery Co, Ltd. pursuant to the provisions of Articles 530-2 to 530-11 of the Commercial Act.

D. Head Office's Address, Phone Number, and Website Address

Classification	Details
Head Office's Address	310 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do
Phone Number	+82-2-2008-2008
Website	http://www.skchemicals.com/

E. Whether Applicable as an SME, Etc.

Whether applicable as an SME	Not applicable
Whether applicable as a venture company	Not applicable
Whether applicable as a middle standing enterprise	Not applicable

F. Contents of the Main Businesses

The Company was established through a demerger of the Green Chemicals and Life Science business divisions from SK discovery Co., Ltd. It operates in two main business areas: Green Chemicals Biz., focusing on environmentally friendly materials, and Life Science Biz., which produces and sells pharmaceuticals and vaccines. The consolidated revenue for the year-end 2024 is KRW 1.7368 trillion, with the following composition: 84.8% from high-performance copolyester resins and other products, 20.6% from natural and synthetic pharmaceuticals, 15.4% from vaccine products, and -20.8% from other sources.

☞ For more details, please refer to 'II. Business Description' of these disclosure documents.

G. Matters Concerning the Credit Rating [Corporate Bond]

Meeting Number	Amount Issued (KRW 100 million)	Date of Issuance	Date of Maturity	Classification	Date of Rating	Rating	Rating Agency
15-2	1,000	2025.01.31	2028.01.31	This rating	2025.01.10	A+	Korea Ratings Inc.
15-1	700	2025.01.31	2027.01.29	This rating	2025.01.10	A+	Korea Ratings Inc.
15-1	700	2025.01.31	2027.01.29	This rating	2025.01.09	A+	NICE Investors Service
15-2	1000	2025.01.31	2028.01.31	This rating	2025.01.09	A+	NICE Investors Service
15-2	1,000	2025.01.31	2028.01.31	This rating	2025.01.06	A+	Korea Investors Service
15-1	700	2025.01.31	2027.01.29	This rating	2025.01.06	A+	Korea Investors Service
14-2	1,000	2024.04.26	2027.04.26	This rating	2024.04.12	A+	Korea Investors Service
14-1	500	2024.04.26	2026.04.24	This rating	2024.04.12	A+	Korea Investors Service
13-3	700	2023.02.24	2026.02.24	Periodic rating	2024.04.12	A+	Korea Investors Service
13-2	950	2023.02.24	2025.02.24	Periodic rating	2024.04.12	A+	Korea Investors Service
13-1	350	2023.02.24	2024.08.23	Periodic rating	2024.04.12	A+	Korea Investors Service
12-2	750	2019.10.30	2024.10.30	Periodic rating	2024.04.12	A+	Korea Investors Service
14-2	1,000	2024.04.26	2027.04.26	This rating	2024.04.12	A+	Korea Ratings Inc.
14-1	500	2024.04.26	2026.04.24	This rating	2024.04.12	A+	Korea Ratings Inc.
13-3	700	2023.02.24	2026.02.24	Periodic rating	2024.04.12	A+	Korea Ratings Inc.
13-2	950	2023.02.24	2025.02.24	Periodic rating	2024.04.12	A+	Korea Ratings Inc.
13-1	350	2023.02.24	2024.08.23	Periodic rating	2024.04.12	A+	Korea Ratings Inc.

12-2	750	2019.10.30	2024.10.30	Periodic rating	2024.04.12	A+	Korea Ratings Inc.
13-1	350	2023.02.24	2024.08.23	Periodic rating	2024.04.11	A+	NICE Investors Service
14-2	1000	2024.04.26	2027.04.26	This rating	2024.04.11	A+	NICE Investors Service
14-1	500	2024.04.26	2026.04.24	This rating	2024.04.11	A+	NICE Investors Service
13-3	700	2023.02.24	2026.02.24	Periodic rating	2024.04.11	A+	NICE Investors Service
13-2	950	2023.02.24	2025.02.24	Periodic rating	2024.04.11	A+	NICE Investors Service
12-2	750	2019.10.30	2024.10.30	Periodic rating	2024.04.11	A+	NICE Investors Service
11-2	800	2019.01.31	2024.01.31	Periodic rating	2023.06.09	A+	Korea Ratings Inc.
13-3	700	2023.02.24	2026.02.24	Periodic rating	2023.05.25	A+	Korea Investors Service

13-2	950	2023.02.24	2025.02.24	Periodic rating	2023.05.25	A+	Korea Investors Service
13-1	350	2023.02.24	2024.08.23	Periodic rating	2023.05.25	A+	Korea Investors Service
12-2	750	2019.10.30	2024.10.30	Periodic rating	2023.05.25	A+	Korea Investors Service
11-2	800	2019.01.31	2024.01.31	Periodic rating	2023.05.25	A+	Korea Investors Service
13-3	700	2023.02.24	2026.02.24	Periodic rating	2023.05.04	A+	NICE Investors Service
13-2	950	2023.02.24	2025.02.24	Periodic rating	2023.05.04	A+	NICE Investors Service
13-1	350	2023.02.24	2024.08.23	Periodic rating	2023.05.04	A+	NICE Investors Service
12-2	750	2019.10.30	2024.10.30	Periodic rating	2023.05.04	A+	NICE Investors Service
11-2	800	2019.01.31	2024.01.31	Periodic rating	2023.05.04	A+	NICE Investors Service
13-3	700	2023.02.24	2026.02.24	This rating	2023.02.07	A+	Korea Investors Service
13-2	950	2023.02.24	2025.02.24	This rating	2023.02.07	A+	Korea Investors Service
13-1	350	2023.02.24	2024.08.23	This rating	2023.02.07	A+	Korea Investors Service
13-3	700	2023.02.24	2026.02.24	This rating	2023.02.06	A+	NICE Investors Service
13-1	350	2023.02.24	2024.08.23	This rating	2023.01.26	A+	NICE Investors Service
13-2	950	2023.02.24	2025.02.24	This rating	2023.01.26	A+	NICE Investors Service
12-2	750	2019.10.30	2024.10.30	Periodic rating	2022.04.19	A+	Korea Investors Service
12-1	700	2019.10.30	2022.10.30	Periodic rating	2022.04.19	A+	Korea Investors Service

11-2	800	2019.01.31	2024.01.31	Periodic rating	2022.04.19	A+	Korea Investors Service
9-2 (Jointly guaranteed by SK Bioscience)	660	2018.04.30	2023.04.30	Periodic rating	2022.04.19	A+	Korea Investors Service
12-2	750	2019.10.30	2024.10.30	Periodic rating	2022.04.14	A+	NICE Investors Service
12-1	700	2019.10.30	2022.10.30	Periodic rating	2022.04.14	A+	NICE Investors Service
11-2	800	2019.01.31	2024.01.31	Periodic rating	2022.04.14	A+	NICE Investors Service
10-2	200	2018.10.30	2022.10.30	Periodic rating	2022.04.14	A+	NICE Investors Service
9-2	660	2018.04.30	2023.04.30	Periodic rating	2022.04.14	A+	NICE Investors Service
9-2	660	2018.04.30	2023.04.30	Periodic rating	2022.04.14	A+	Korea Ratings Inc.
12-1	700	2019.10.30	2022.10.30	Periodic rating	2022.04.14	A+	Korea Ratings Inc.

[Commercial Paper]

Date of Rating	Type of Rating	Rating	Effective Date	Rating Agency
2024.12.18	Periodic rating	A2+	2025.06.30	Korea Investors Service
2024.12.10	Periodic rating	A2+	2025.06.30	NICE Investors Service
2024.04.12	This rating	A2+	2025.06.30	Korea Investors Service
2024.04.11	This rating	A2+	2025.06.30	NICE Investors Service
2023.12.20	Periodic rating	A2+	2024.06.30	Korea Investors Service
2023.12.12	Periodic rating	A2+	2024.06.30	NICE Investors Service
2023.05.25	This rating	A2+	2024.06.30	Korea Investors Service
2023.05.04	This rating	A2+	2024.06.30	NICE Investors Service
2022.12.20	Periodic rating	A2+	2023.06.30	NICE Investors Service
2022.12.13	Periodic rating	A2+	2023.06.30	Korea Investors Service
2022.04.19	This rating	A2+	2023.06.30	Korea Investors Service
2022.04.14	This rating	A2+	2023.06.30	NICE Investors Service

※ About Corporate Bond Ratings

AAA	A 'AAA' rating indicates the highest probability of payment of principal and interest.
AA	A 'AA' rating indicates a very high probability of the payment. However, the probability may be slightly lower than the highest rating category (AAA).
A	An 'A' rating indicates a high probability of the payment. However, the probability may be more sensitive to changes in circumstances and economic conditions than the higher rating category (AA).
BBB	A 'BBB' rating indicates a moderate probability of the payment. However, changes in circumstances and economic conditions are more likely to impair this likelihood than the higher rating category (A).
BB	A 'BB' rating indicates some uncertainty about the probability of the payment and speculative elements.
B	A 'B' rating indicates substantial uncertainty about the probability of the payment and is considered speculative. Interest payments are not guaranteed during a recession.
CCC	A 'CCC' rating indicates a high risk of default, questionable probability of the payment, and is considered highly speculative.
CC	A 'CC' rating indicates a very high risk of default and an extremely low probability of the payment, with greater uncertainties than the higher rating category (CCC).
C	A 'C' rating indicates the highest risk of default and no capacity to repay the principal and interest.
D	A 'D' rating indicates default.

※ Ratings of Commercial Papers and Electronic Short-Term Bonds

A1	The capacity for timely payment is extremely strong.
A2	The capacity for timely payment is very strong, but somewhat less than 'A1.'
A3	The capacity for timely payment is very good, but somewhat less than 'A2.'
B	The capacity for timely payment is adequate, but depending on short-term changes in conditions, speculative elements are inherent in its stability.
C	The capacity for timely payment is poor and is considered highly speculative.
D	A 'D' rating indicates default.

H. Matters Related to the Company's Listing (or Registration/Designation) of Shares and Special Listing

Status of stock certificates listed (or registered/designated)	Date of stock certificates listed (or registered/designated)	Type of special listing
Listed on the securities market	January 5, 2018	Not applicable

2. Company History

A. History of the Company

1969	Founded Sunkyoung Synthetic Fiber
1987	Acquired Samshin Pharmaceutical
1989	Established Life Science Research Institute
1998	Changed the company name to SK Chemicals

1999	Developed Sunpla®, the world's first 3rd generation platinum complex anticancer drug (Korea's first new drug)
2002	Launched Joins®, an arthritis treatment (First natural treatment)
2005	Established SK Petrochemical (DMT business) Merged with SK Pharmaceutical
2006	Merged with Dongshin Pharmaceutical (Began the vaccine and blood products businesses) Developed biodiesel production technology
2008	Acquired UB Care Co., Ltd., a healthcare company
2009	Launched Ecogen®, a biomass-containing polyester resin Licensed out hemophilia treatment of NBP601, a new biopharmaceutical drug (CSL Limited.), for the first time in Korea
2012	NBP601 selected as Top 10 New Technologies in Korea Completed the construction of Andong Vaccine Plant (L House)
2013	Established Initz Co., Ltd. (Began the PPS business through a joint venture with Teijin Limited)
2014	Pursued a joint development of next generation pneumococcal vaccine with Sanofi Pasteur SA Andong Vaccine Plant (L House) approved to be qualified for KGMP (Korea Good Manufacturing Practice)
2015	Launched SKYCellflu® Trivalent (Korea's first cell-cultured influenza vaccine)
2016	Launched SKYCellflu® Quadrivalent (World's first quadrivalent cell-cultured influenza vaccine) Launched Afstyla (NBP601), a hemophilia treatment (CSL Limited.)
2017	Launched SKYZoster® (World's second and Korea's first herpes zoster vaccine) Launched a holding company (Surviving entity: SK Discovery / Newly established entity: SK Chemicals)
2018	Entered into a technology transfer agreement with Sanofi Pasteur for the production of highly efficient influenza vaccines Launched SKYVaricella® (Varicella vaccine) Established SK Bioscience (through a split-off of the vaccine business)
2019	Merged with Initz Co., Ltd.
2020	Sold off the bio-energy business
2021	Listed SK Bioscience on the securities market Established SK Multi-Utility (through a split-off of the utility supply business) Sold off the PPS business Commercialized ECOTRIA CR
2022	Bio-polyol (PO3G) commercialized Commercialized SKYPET CR (Korea's first chemically recycled PET) Received UL Low Carbon Certification for CR-Copolyester
2023	Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd. established
2024	Launch of Subex (The First Combination Therapy for Migraine Treatment in Korea) Launch of ECOTRIA CLARO 300

B. Location of the Company's Head Office and Its Change

310 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do

C. Significant Changes in Management and Auditors

Date of Change	Type of General Meeting of Shareholders	Appointment		Expiry or Dismissal
		Newly Appointed	Reappointed	
2020.03.25	Regular Meeting of Shareholders	Independent Director Moon Sunghwan Independent Director Cho Honghee	Chief Executive Officer Kim Cheol	Independent Director Choi Jeon Hwan
2020.12.01	-	-	-	Independent Director An Yang Ho
2021.03.31	Regular Meeting of Shareholders	-	Independent Director An Yang Ho	-
2022.03.28	Regular Meeting of Shareholders	Non-Executive Director Ahn Jae Hyun	Chief Executive Officer Jeon Kwang Hyun Independent Director Park Jungsoo	-
2023.03.28	Regular Meeting of Shareholders	Chief Executive Officer Ahn Jae Hyun Non-Executive Director Jeon Kwang Hyun	Chief Executive Officer Kim Cheol Independent Director Moon Sunghwan Independent Director Cho Honghee	-
2024.03.26	Regular Meeting of Shareholders	Independent Director Choi Sunmee	-	Independent Director An Yang Ho

D. Changes in the Largest Shareholder

When the Company was split off and newly established on December 1, 2017, the largest shareholder of the Company was Vice Chairman Choi Chang Won.

However, as a result of SK Discovery's tender offer for the Company's registered common shares on April 19, 2018, SK Discovery Co., Ltd. held 24.15% (3,148,571 shares) of the Company's total issued shares at that time and became the largest shareholder.

☞ For more details related to the largest shareholder, please refer to 'VII. Matters Concerning Shareholders'.

E. Change of the Trade Name

The Company was newly established on December 1, 2017 under the trade name "SK Chemical" through the split-off of the Green Chemicals and Life Science businesses previously operated by SK Discovery Co, Ltd. pursuant to the provisions of Articles 530-2 to 530-11 of the Commercial Act.

F. If the Company Has Executed Merger, Their Relevant Details

What follows are the matters which have taken place within the last 5 business years.

1) Split-off of the utility supply business division

- Date of split-off: December 1, 2021

For more details, please refer to "XI. Additional Investor Protection Disclosures - 4. Subsequent Events - B. Post-merger Information, Etc. - 2) Utility Supply Business Division Spin-off."

G. The following details pertain to important matters related to business activities that occurred within the past five fiscal years.

[SK Chemicals]

1) Decision to Transfer the Bio-energy Business

On February 5, 2020, the Company decided to transfer the bio-energy business to 'Han & Co No.16 Co., Ltd.' through a resolution of the Board of Directors. On February 19, 2020, Han & Co No.16 Co., Ltd. transferred its status as a contracting party and all rights and obligations under the same contract to K-Green System Co., Ltd., a wholly owned subsidiary of the Company. As of the date of report submission, K Green System Co., Ltd. has changed its trade name to SK EcoPrime. The Company held an extraordinary General Meeting of Shareholders on March 17, 2020.

The overview of the relevant contract is as follows.

- Sold to: SK Eco Prime
- Business transferred: Bio-energy business
- Transfer price: KRW 385.2 billion
- Date of contract execution: February 5, 2020
- Date of extraordinary meeting of shareholders: March 17, 2020
- Date of transaction closing: May 29, 2020

※ For details of this transfer, refer to the report on major issues which the Company submitted to the electronic disclosure system on February 5, 2020 (correction disclosure made on July 14, 2020) and the report on the closing of merger, etc., submitted to the electronic disclosure system on May 29, 2020.

2) Publicly Offered Sales of SK Bioscience

Following the listing of SK Bioscience, the Company's subsidiary, on the securities market, the Company decided to publicly offer and sell the old stocks of the relevant subsidiary on February 5, 2021. For more information, refer to the securities declaration initially submitted by SK Bioscience on February 5, 2021.

3) Decision on the Capital Increase without Consideration

Based on the resolution of the Board of Directors dated October 7, 2021, the Company decided to carry out a capital increase without consideration for the allotment of new shares in the ratio of 0.5 share for each share held by the shareholders (excluding treasury shares) registered in the list of shareholders as of the date of new shares allocation.

The details of the allocation following the execution of the capital increase without consideration are as follows.

- Details of the Allocation Following the Capital Increase without Consideration

(Unit: stocks)

Classification	Before the Capital Increase without Consideration	Details of the Allocation Following the Capital Increase without Consideration	After the Capital Increase without Consideration
Common stocks (excluding treasury stocks)	11,738,768	5,869,384	17,608,152
Preferred stocks (excluding treasury stocks)	1,313,519	656,759	1,970,278
Treasury stocks	157,779	-	157,779
Total	13,210,066	6,526,143	19,736,209

Following the execution of the capital increase without consideration, the Company acquired treasury stocks (18,229 common stocks, 2,982 preferred stocks) in order to process fractional shares on November 9, 2021.

4) Decision to Acquire the Stocks and Equity Securities of Another Corporation

On March 6, 2023, the Company paid in RMB 350 million in capital and established Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd., a wholly owned overseas subsidiary, and incorporated it as a subsidiary.

- Target company: Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.
- Acquisition amount: KRW 66,094,000,000
- Date of acquisition: March 7, 2023
- Method of acquisition: Cash Acquisition

[SK bioscience]

The Company's subsidiary, SK Bioscience, was established on July 1, 2018, through the physical split-off of SK Chemicals' VAX business division, and its main history is as follows.

Year	History
2001	Acquired Dongshin Pharmaceutical
2005	Established the Vaccine R&D Center
2009	License Out of NBP601 (Hemophilia Treatment) – The First Domestic Bio-New Drug (CSL)
2012	Completed construction of a vaccine production plant (Andong L House)
2013	Co-development and Global Supply Agreement for Typhoid Vaccine (IVI, GF)
2014	Executed a contract on the joint development of next-generation pneumococcal vaccine (Sanofi)
2015	Released Korea's first trivalent cell culture-based influenza vaccine
2016	Released the world's first quadrivalent cell-cultured influenza vaccine
2017	Co-development and Manufacturing Agreement for Pediatric Diarrhea Vaccine for Developing Countries (PATH, GF) Released the world's second shingles vaccine
2018	Executed a contract on the export of cell cultured flu vaccine production technology (Sanofi) Released chickenpox vaccine Established SK Bioscience Co., Ltd. (by splitting off the SK Chemicals' VAX business division on July 1, 2018)
2019	Acquired WHO PQ certification for trivalent and quadrivalent influenza vaccines and varicella vaccine
2020	Co-development with Sanofi of Next-Generation Pneumococcal Vaccine, Entering Global Phase 2 Clinical Trials, and Initiating COVID-19 Vaccine Development COVID-19 Vaccine Development GF Grant COVID-19 Vaccine Capacity Reservation Agreement (CEPI) and COVID-19 Vaccine CMO Agreement (AstraZeneca) COVID-19 Vaccine CDMO Agreement (Novavax)
2021	Executed a contract on the introduction of Novavax's COVID-19 vaccine technology Listed on the securities market (March 18, 2021) Acquired EU GMP for the first time as a vaccine company in Korea (Andong L House) Received IND approval for a phase 3 clinical trial plan for the COVID-19 vaccine candidate, 'GBP510'
2022	Obtained domestic product approval for Novavax COVID-19 vaccine Signed a pre-purchase agreement for the COVID-19 vaccine 'GBP510' with the government Approval of Phase 3 Clinical Trial Plan (IND) for COVID-19 Vaccine 'GBP510' Booster Shot Obtained Export Item License for Typhoid Vaccine (SkyTyphoid Multi) and Domestic Product License for COVID-19 Vaccine 'SKYCovione (GBP510)' from the Ministry of Food and Drug Safety
2023	Signed a CMO contract for a 2nd generation Ebola vaccine (MSD) Obtained Marketing Authorisation from the UK MHRA for COVID-19 Vaccine 'SKYCovione (GBP510)' (Note 1) and Signed Supply Agreement for Influenza Vaccine with the Korea Customs Service COVID-19 Vaccine 'SKYCovione (GBP510)' Listed in the World Health Organization (WHO) Emergency Use Listing (Note 1) Announced the results of global phase 2 clinical trial for next-generation pneumococcal vaccine jointly developed with Sanofi Signed a globalization MOU and influenza vaccine stock solution supply contract with the state-owned pharmaceutical company GPO under the Thai government Acquired shares in Novavax, USA Membrane Patch Vaccine Development Agreement (Vaxxas) Co-development Agreement for 2nd Generation Ebola Vaccine (Hilleman Laboratories) Initiated the process for filing an IND application for a phase 3 clinical trial of the next-generation pneumococcal vaccine, jointly developed with Sanofi in the USA
2024	Export of Influenza Vaccine SkyCellflu to Thailand and Groundbreaking for Expansion of Andong L House Factory Signed Domestic Distribution Agreement for Five Vaccines, including Pediatric DTaP Vaccine, with Sanofi and Conditional Equity Acquisition of Sunflower Therapeutics, USA Acquisition of Equity in Fina Biosolutions, USA and Acquisition of Controlling Stake in IDT Biologika, Germany Obtained Product License for Influenza Vaccine SkyCellflu in Indonesia Obtained Next-Generation World-Class Product Certification for Influenza Vaccine SkyCellflu, Approved Phase 1 and 2 Clinical Trial Plan for mRNA Japanese Encephalitis Vaccine 'GBP560' in Australia, and Initiated Global Phase 3 Clinical Trials for Next-Generation Pneumococcal Vaccine Co-developed with Sanofi Signed Revised Agreement for Next-Generation Pneumococcal Vaccine Co-developed with Sanofi (Advancing Development of Additional Next-Generation Vaccines)

(Note 1) Due to the transition to endemic and the World Health Organization's recommendation to compose variants for the vaccine strain, it was voluntarily withdrawn and revoked in 2024.

[IDT Biologika]

Year	History
1921	Establishment of the Altmark County Bacterial Research Institute (Dessau, Germany)
1925	Commencement of Production for Human Tuberculosis Vaccine and Swine Erysipelas Vaccine
1930	Expansion of Industrial Production for Passive Immunization Serum Establishment of Anhalt Serum Institute Dessau GmbH (ASID)
1945	Development of Vaccines and Diagnostics for Infectious Disease Response Establishment of the Vaccine Research Institute (Forschungsinstitut für Impfstoffe)
1960	Implementation of Government Policies for the Prevention and Treatment of Animal Infectious Diseases, and Determination of Research and Production Directions
1980	Spin-off of Human Pharmaceutical Production Division Renaming of the Vaccine Factory to Impfstoffwerk Dessau-Tornau
1993	Privatization of the Company (Acquisition by Hartmut Klocke)
1999	Expansion of Production Capacity and Focus on Core Businesses: 1) Human Vaccine and Biologics CDMO, 2) Development, Production, and Distribution of Animal Pharmaceuticals
2007	Renamed to IDT Biologika
2015	Acquisition of Aeras TB's Contract Manufacturing Division (Rockville, Maryland) and Expansion into the North American Market
2019	Sale of the Animal Health Division to Ceva Sante Animale
2023	Official Certification of Pandemic Response Capabilities by the German Government, the First in Germany
2024	SK bioscience Acquires 60% Stake in IDT Biologika

[SK Multi-Utility]

The Company's subsidiary, SK Multi-Utility, was established on December 1, 2021, through the physical split-off of SK Chemicals' power, steam and other utility supply divisions, and its main history is as follows.

Year	History
1989	Completed the construction of a coal-fired boiler
2009	Completion of Environmentally Friendly Eco Green Boiler
2021	Established SK Multi-Utility (by physically splitting off SK Chemicals' power, steam, and other utility supply divisions on December 1, 2021)
2022	Signed an EPC contract for an LNG CHP plant
2023	Signing of Project Financing Agreement for LNG Combined Heat and Power Plant Funding

3. Capital Changes

A. Changes in the Capital

The Company increased its capital by KRW 32,793,175,000 by issuing 5,879,384 common shares and 656,759 preferred shares in 2021, and 22,492 shares in 2022.

(Unit: KRW, stocks)

Type	Classification	The 8th Period (End of 2024)	The 7th Period (End of 2023)	The 6th Period (End of 2022)	The 5th Period (End of 2021)	The 4th Period (End of 2020)
Common stocks	Total number of issued stocks	17,253,783	17,253,783	17,253,783	17,620,780	11,741,396
	Par value	5,000	5,000	5,000	5,000	5,000
	Capital	88,216,360,000	88,216,360,000	88,216,360,000	88,103,900,000	58,706,980,000
Preferred stocks	Total number of issued stocks	2,115,429	2,115,429	2,115,429	2,115,429	1,458,670
	Par value	5,000	5,000	5,000	5,000	5,000
	Capital	10,577,145,000	10,577,145,000	10,577,145,000	10,577,145,000	7,293,350,000
Total	Capital	98,793,505,000	98,793,505,000	98,793,505,000	98,681,045,000	66,000,330,000

※ On September 28, 2022, the Board of Directors decided to retire 389,489 treasury stocks held by the company, and due to the retirement out of profits, there was no decrease in capital.

4. Total Number of Shares and Related Information

A. Status of the Total Number of Stocks

(Reference date: 2024.12.31)

(Unit: stocks, %)

Classification		Type of stock			Note
		Common stocks	Preferred stocks	Total	
I. Total number of stocks to be issued		40,000,000	10,000,000	50,000,000	-
II. Total number of stocks issued to date		17,643,272	2,115,429	19,758,701	-
III. Total number of stocks decreased to date		389,489	-	389,489	-
	1. Capital reduction	-	-	-	-
	2. Retirement of profits	389,489	-	389,489	-
	3. Redemption of redeemable shares	-	-	-	-
	4. Others	-	-	-	-
IV. Total Number of Issued Shares (II-III)		17,253,783	2,115,429	19,369,212	-
V. Number of treasury stocks		30,857	148,133	178,990	-
VI. Number of Shares in Circulation (IV-V)		17,222,926	1,967,296	19,190,222	-
VII. Treasury Shares Ownership Ratio		0.18	7.00	0.92	-

※ As of November 11, 2022, the exercise of stock options resulted in an increase of 22,492 common shares.

※ On September 28, 2022, the Board of Directors decided to retire 389,489 treasury stocks held by the company, and the retirement was completed on October 5, 2022.

※ 5,869,384 common stocks and 656,759 preferred stocks were increased as a result of the capital increase without consideration on October 22, 2021.

※ As a result of the exercise of stock options on April 2, 2021, the number of common stocks increased by 10,000.

※ On May 4, 2020, treasury shares (948 common stocks, 143,767 preferred stocks) were acquired through the exercise of the shareholders' right to purchase shares in connection with the transfer of the bio-energy business.

※ The common stocks increased by 161,544 as a result of the execution of the paid-in capital increase by third party allocation on May

24, 2019.

B. Status of the Treasury Stock Acquisition and Disposal

The Company repurchased and retired treasury shares for shareholder returns in 2022, but there were no transactions involving the acquisition or disposal of treasury shares during the fiscal year in which the disclosure reference date falls.

(Reference date: 2024.12.31)

(Unit: stocks)

Method of acquisition			Type of stock	Beginning balance	Change			Closing balance	Note
					Acquisition (+)	Disposal (-)	Share retirement (-)		
Amount of shares acquired within profits available for dividends	Direct acquisition	On-market	Common stocks	-	-	-	-	-	-
		Direct acquisition	Preferred stocks	-	-	-	-	-	-
		Off-market	Common stocks	-	-	-	-	-	-
		Direct acquisition	Preferred stocks	-	-	-	-	-	-
		Tender offer	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-
		Subtotal (a)	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-
	Acquisition by Trust Agreement	Number of shares indirectly held through trust contracts	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-
		Number of shares directly held	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-
		Subtotal (b)	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-
Amount of shares acquired for other reasons (c)			Common stocks	30,857	-	-	-	30,857	-
			Preferred stocks	148,133	-	-	-	-	148,133
Total (a+b+c)			Common stocks	30,857	-	-	-	30,857	-
			Preferred stocks	148,133	-	-	-	-	148,133

※On September 28, 2022, the Board of Directors decided to retire 389,489 treasury stocks directly held by the Company.

※ On March 22, 2022, through the decision to enter into a trust agreement for the acquisition of treasury stocks, 389,489 common treasury stocks were acquired. Upon termination of the trust agreement, the acquired stocks were received in kind.

※ On November 9, 2021, treasury stocks (18,229 common stocks and 2,982 preferred stocks) were acquired to process fractional stocks resulting from the stock dividend.

※ On May 4, 2020, treasury shares (948 common stocks, 143,767 preferred stocks) were acquired through the exercise of the shareholders' right to purchase shares in connection with the transfer of the bio-energy business.

C. Status of Issuance of Class Stocks (Name)

(Unit: KRW)

Date of issuance		December 1, 2017	
Issuing price per stock (par value)		39,791	5,000
Total amount of issuance (number of stocks issued)		84,174,339,850	2,115,429
Current balance (current number of stocks)		84,174,339,850	2,115,429
Details of stocks	Duration (valid period for preferred stock rights)	-	
	Matters concerning the profit dividend	- For the preferred stocks without voting rights, an additional 1% per year in terms of par value shall be paid out in cash rather than dividends for the common stocks. - Dividends on preferred shares may be withheld if no dividends are paid on common stocks.	

	Matters concerning the distribution of residual assets		-
	Matters concerning the redemption	Holder of the redemption right	None
		Terms and conditions of the redemption	-
		Method of redemption	-
		Period of redemption	-
		Maturity value per stock	-
		If redemption is planned for 1 year or less	-
	Matters concerning the conversion	Holder of the conversion right	None
		Conversion conditions (including whether the conversion ratio changes)	-
		Exercise of conversion right since issuance	N
		Period of conversion claim	-
		Types of stocks to be issued following the conversion	-
		Number of stocks to be issued following the conversion	-
	Matters concerning the voting rights		- Registered preferred shares to be issued by the Company shall be non-participating, non-cumulative, indefinite, non-voting shares. - If a specified dividend cannot be paid on preferred shares from the profits of the relevant fiscal year, the preferred shares will have voting rights from the next general meeting following the resolution not to pay the specified dividend, until the conclusion of the general meeting that resolves the payment of the preferred dividend.
	Other matters to be factored into investment decisions (inter-shareholder agreements and financial agreements, etc.)		- The date of issuance above is the date of the split off of the Company. - The total amount issued and the current balance above are the values obtained by multiplying the number of preferred stocks by the amount calculated by dividing the sum of the capital stock and paid-in capital in excess of par value at the time of the split-off due to the Company's split-off by the total number of issued stocks. - The above issue price per share is the amount obtained by dividing the total issuance amount by the total number of shares issued.

5. Articles of Incorporation

A. History of the Changes Made to the Articles of Incorporation

Date of Change of the Articles of Incorporation	Name of the Relevant General Meeting of Shareholders	Major Changes	Reason for the Relevant Change Made
2024.03.26	7th Annual General Meeting of Shareholders	1. Extension of the Board of Directors Meeting Notice Date 2. Amendment of Certain Provisions Due to Improvement of Dividend Procedures	1. Securing Sufficient Review Time for Board Agenda Items through Extension of the Board of Directors Meeting Notice Period 2. Separation of the record date for voting rights and the dividend record date, with the dividend amount confirmed first and the dividend record date set after, to improve the dividend process and allow shareholders to know the dividend amount before making investments.
2022.03.28	The 5th Regular Meeting of Shareholders	1. Cancellation of share classes upon introduction of electronic securities system 2. Aligning the Director's term end date with the conclusion of the annual General Meeting of Shareholders 3. Establishment of new provisions on the reasons for the introduction of an interim dividend system	3. Lack of need to distinguish share classes due to the introduction of electronic securities system 4. Eliminating the risk of issuance due to the mismatch between the Director's term end date and the annual general meeting date, such as term gaps. 5. Establishment of a new provision for the interim dividend system based on the interim dividend plan to be implemented as part of the shareholder return policy

B. Current Status of Business Objectives

Classification	Business Purpose	Whether Conducting Business
1	Manufacture, processing, sale and import/export of synthetic resins and related products;	Conducting
2	Manufacture, processing, sale, and import/export of carbon fiber, composite materials, and related products (Note 1)	Not conducting
3	Manufacture, processing, sale, and import/export of inorganic materials and related products (Note 1)	Not conducting
4	Manufacture, processing, sale, and import/export of pesticides and related products (Note 2)	Conducting
5	Manufacture, processing, sale, and import/export of various surfactants, synthetic detergents, and other household goods and related products (Note 2)	Conducting
6	Manufacture, processing, sale, and import/export of information electronic materials and related products (Note 2)	Conducting
7	Manufacture, processing, sale and import/export of fine chemical products;	Conducting
8	Manufacture, processing, sale, and import/export of food, food additives, ginseng products, and related products (Note 2)	Conducting
9	Manufacture, processing, repair, sale, and import/export of pharmaceuticals, quasi-drugs, veterinary drugs, cosmetics, medical supplies, medical equipment, sanitary products, wholesale distribution, and health care-related businesses.	Conducting
10	Manufacture, processing, sale, and import/export of raw materials for polyester fiber and regenerated fiber (acetate fiber, etc.) and related chemical products	Conducting
11	Manufacture, processing, sale and import/export of polyester fibers and related products;	Conducting
12	Manufacture, processing, sale, and import/export of regenerated fiber (acetate fiber, etc.) and related products (Note 1)	Not conducting
13	Manufacture, processing, dyeing, sale, and import/export of woven/knitted fabrics, clothing, and related products (Note 1)	Not conducting
14	Manufacture, processing, sale, and import/export of building materials and related products (Note 1)	Not conducting
15	Venture capital or business support for start-ups;	Conducting
16	E-commerce and service provider through the Internet;	Conducting
17	Real estate sales and leasing services;	Conducting
18	Specialized construction business, building and civil engineering construction business (Note 2)	Conducting
19	Environmental measurement agency business and environmental management service business (Note 2)	Conducting
20	Environmental pollution prevention facility business (Note 2)	Conducting
21	Manufacture, processing, sale and import/export of high-purity organic solvents, and retail business of ethanol;	Conducting
22	Manufacture, cultivation, storage, processing, sale, and import/export of biodiesel and other petroleum alternative fuels, their raw materials, mixtures, by-products, and production plant facilities (Note 1)	Not conducting
23	Refining, processing, sale, import/export of by-products (toxic substances, methanol, etc.) generated in the manufacturing process of the products in each of the above items, and sale of utilities (nitrogen, compressed air, steam, etc.)	Conducting
24	Manufacture, sale, and import/export of machinery, equipment, and facilities related to the businesses in each of the above items	Conducting
25	Technical services related to the businesses of each of the foregoing subparagraphs;	Conducting
26	Investment in the textile and chemical industries and investment deemed necessary for the management of the businesses in each of the above items	Conducting
27	Provision and sale of computer system services including analysis, design, development, integration, education, and operation of computer systems	Conducting
28	Manufacture, processing, and sale of health functional foods (Note 2)	Conducting
29	Business related to the operation of and investment in medical institutions (Note 2)	Conducting
30	Business related to the manufacture, processing, sale, and import/export of automotive parts and related products (Note 1)	Not conducting
31	Leasing of intellectual property rights such as trademarks and patents related to each of the foregoing subparagraphs;	Conducting
32	Construction and operation of facilities necessary for the implementation of the businesses, product manufacturing and research of each of the foregoing subparagraphs; and/or	Conducting
33	Any business and investment related to, necessary for, or concomitant of each of the foregoing subparagraphs.	Conducting

(Note 1) Regarding the business purposes in each of the above items, the Company previously conducted the businesses but has sold them and is not currently conducting them as of the reference date of the disclosure document preparation.

(Note 2) Regarding the business purposes in each of the above items, the Company previously conducted the businesses but has discontinued them as of the reference date of the disclosure document preparation.

II. Business Description

1. Business Overview

The Company is based in Pangyo and operates three domestic manufacturing plants in Ulsan, Cheongju, and Andong, as well as two manufacturing plants in Yantai and Shantou, China. Additionally, the Company operates local subsidiaries and regional offices in China, the United States, Germany, Japan, and Malaysia.

The Company's business is primarily divided into Green Chemicals Biz., which oversees environmentally friendly materials, including the Copolyester business, Recycle business, and the functional materials business, which manufactures and sells adhesives and coatings. Additionally, there is the bio-polyol (PO3G) business.

In particular, the Company is securing new growth drivers by building a portfolio for a circular economy business centered around green materials. This includes the commercialization of bio-polyol (PO3G) and the establishment of a commercial production infrastructure for circularly recycled PET materials and raw materials (r-BHET) through an asset transfer agreement with Shuye Co., Ltd. in China.

Life Science Biz., which oversees the pharmaceutical and biotechnology businesses, is engaged in the production and sale of new drugs developed in-house, such as a natural substance-based arthritis treatment and a blood circulation enhancer, and premium vaccines such as the world's first cell-cultured quadrivalent influenza vaccine developed by its subsidiary SK Bioscience and herpes zoster vaccine.

Other businesses include SK Multi-Utility, which operates as a district energy supply business and, as a deemed electricity business operator, engages in the sale of heat (steam) and electricity within its supply area.

The main products which the Company offers by business division are as follows.

- Green Chemical Biz.: High-performance Copolyester resin, DMT, Copolyester adhesives, bio-polyol (PO3G), circularly recycled PET materials and raw materials (r-BHET), etc.
- Life Science Biz. (Pharma business): Joins, Gynexin, Rivastigmine patch, and other natural and synthetic pharmaceuticals
- Life Science Biz. (SK Bioscience): In-house vaccines, Boostrix, intravenous solutions, CDMO, etc.

The Company's consolidated revenue for 2024 is KRW 1.7368 trillion, with the business segments including Green Chemicals Biz. 84.8%, Life Science Biz. Pharma division 20.6%, SK bioscience 15.4%, and other segments 20.8%. Additionally, by region, the revenue is composed of 58.3% from exports and 41.7% from domestic sales.

The above "1. For details of the "Business Overview" and any omitted information, please refer to "II. Business Description," from "2. Key Products and Services" to "7. Other Reference Information."

2. Key Products and Services

A. Key Product Sales

The Company's Green Chemicals Biz. provides differentiated products based on customer needs, including high-performance Copolyester resins, DMT, Copolyester adhesives, bio-polyol (PO3G), circularly recycled PET materials and raw materials (r-BHET), etc. Life Science Biz. operates in the healthcare sector across two areas: the pharmaceutical business (Pharma division) and the vaccine business (SK bioscience). The net sales amount and the weight of sales by business division are as follows.

(Reference date: 2024.12. 31)

(Unit: KRW one million, %)

Division		Key Products	Sales revenue	Percentage
Green Chemicals Biz.		High-performance Copolyester resins, DMT, Copolyester adhesives, bio-polyol (PO3G), circularly recycled PET materials and raw materials (r-BHET), etc.	1,473,611	84.8%
Life Science Biz.	Pharma Business	Natural substance based and synthetic drugs (arthritis treatment, blood circulation improving agent, etc.), etc.	357,230	20.6%
	SK Bioscience	In-house vaccines, Boostrix, intravenous solutions, CDMO, etc.	267,545	15.4%

Life Science Biz.	Pharma Business	Natural substance based and synthetic drugs (arthritis treatment, blood circulation improving agent, etc.), etc.	357,230	20.6%
	SK Bioscience	In-house vaccines, Boostrix, intravenous solutions, CDMO, etc.	267,545	15.4%
Others			(361,607)	-20.8%
Total			1,736,779	100.0%

※ For detailed sales information, please refer to "II. Business Description," section "4. Status of Sales & Contracts Won," subsection "A. Sales Performance."

B. Key Products

1) Green Chemicals Biz.

[SKYGREEN] Copolyester resin

Copolyester (PETG, PCTG) SKYGREEN is used in a wide range of applications from household items to industrial materials such as cosmetic containers, electronic components, and building materials based on its excellent transparency, chemical resistance, processability, and moldability. A stable production system has been established through vertical integration from CHDM, the main raw material, to Copolyester.

[ECOZEN] Bio-Based Copolyester Resin

Launched in 2009, ECOZEN incorporates bio-based (plant-derived) components, with a biomass content of 1-15% by carbon weight, resulting in a product with improved heat resistance compared to the existing Copolyester SKYGREEN. Additionally, it does not contain Bisphenol derivatives (such as BPA) or Phthalate-based plasticizers regulated by the EU RoHS directive. It meets the requirements for food contact materials in Korea, the United States, Europe, China, and Japan. Based on its excellent properties, ECOZEN is used in a wide range of applications, including electronics, food containers, and baby products.

[ECOTRIA] Resource circulated copolyester resin

ECOTRIA is a Copolyester product made from post-consumer recycled materials or complies with the definition of PET as described in ASTM D7611-20. It is divided into the R series, which uses physically recycled materials, and the CR series, which uses chemically recycled materials, along with RIC #1 PET. The series is composed of the CLARO series, which offers superior moldability.

ECOTRIA offers transparency, physical performance, and moldability close to that of conventional Copolyester products, making it suitable for a wide range of applications, including cosmetic containers, packaging materials, and household products.

[SKYDMT] DMT

DMT is primarily used in the synthesis of Polyesters such as PET and PBT through ester exchange reactions, and is used in high-quality products such as films, fibers, engineering plastics, and adhesives. Also, the Company's DMT is used as a raw material for CHDM for the production of Copolyester.

[SKYBON] Polyester resin for coating and adhesion

The high molecular weight Polyester resin, SKYBON, is renowned for its flexibility and excellent adhesion, making it highly sought after as an adhesive and coating resin in various fields, including steel plates for home appliances and food can coatings. Its solvent-free, hot-melt type, which does not use organic solvents, offers excellent wash resistance and is increasingly applied as an adhesive resin for heat transfer films in the apparel industry. In addition, to respond to the eco-friendly trend, the Company is expanding its portfolio of water-based polyester resins and developing high-functional specialty resins that can be applied to rapidly evolving electronic component materials.

[SKYPURA] PCT

SKYPURA, a PCT material, is a type of super engineering plastic made based on CHDM. This material has excellent heat stability, reflectance, and light resistance, making it used for TV or lighting LED reflectors. It also has excellent electrical properties as a high-heat-resistant material, expanding its use as a material for electrical and electronic components such as SMT connectors. Recently, it is being sold with expanded applications such as automotive films and high-heat-resistant fibers due to the needs for heat resistance, durability, and insulation resistance.

[SKYPEL] TPEE

SKYPEL is a thermoplastic elastomer based on high molecular weight polyester. As an elastic material with intermediate characteristics between plastic and rubber, it is used in a range of applications such as automobiles, E&E, fiber, and film. Recently, with the emphasis on aesthetic/tactile properties, the demand for TPEE, which has excellent cost-effectiveness, is expanding as a material for shoes and synthetic leather, and the market is expanding at an annual average of 6%, making it an attractive material. We continue to expand our market efforts by developing differentiated materials with low hardness but excellent physical properties, and by creating products that meet customer needs.

[SKYTRA] Compound Product

SK chemicals' compounding brand, SKYTRA, is based on high-performance resins produced by SK chemicals, offering solutions that meet the diverse needs of customers.

Based on the resin produced by SK Chemicals, it is achieving continuous growth through business development for various applications, including automobiles, electricity and electronics, and living environment.

[PO3G] 100% Bio-based Polyol

PO3G is a 100% new biomaterial that replaces polyols using conventional petroleum-based raw materials. Polyol is one of the core raw materials for polyurethane materials widely used for applications such as synthetic leather, clothing, coating, and adhesive materials, and spandex fibers. PO3G, made from biological resources, is a renewable resource unlike limited resources such as petroleum. It has a low greenhouse gas (carbon dioxide) emission, contributing to the resolution of global environmental and climate issues. In terms of physical properties, it enables excellent low-temperature characteristics, elasticity, tensile strength, and superior surface properties, allowing for the development of differentiated products that can meet the diverse needs of customers. The PO3G commercial facility completed its trial operation in March 2022 and is currently equipped with an annual production capacity of 5,000 tons. It is set to actively venture into the eco-friendly market as a new growth driver.

[SKYPET CR] Chemically recycled PET resin

SKYPET CR is the world's first commercially available chemically recycled PET resin. It offers the same level of physical properties as conventional PET, making it applicable in a wide range of uses. Our SKYPET CR has been recognized for its excellent quality and safety, and is expanding its application range to include source containers, tire cords, and more. Moving forward, we aim to meet the eco-friendly material needs of various global brand owners and continue to expand its reach.

2) Life Science Biz.

(1) Pharmaceutical Business (Pharma Division)

[Joins] Natural Product Arthritis Treatment

Joins is Korea's first herbal ingredient-based arthritis treatment that has proven equivalent anti-inflammatory and analgesic effects and low side effects compared to existing anti-inflammatory analgesics in clinical trials conducted at five general hospitals, including Seoul National University Hospital. In addition to anti-inflammatory and analgesic effects, it is evaluated as a fundamental treatment for arthritis as it exhibits protective effects on cartilage tissue. Since its launch in 2002, it has become SK chemicals' flagship product, surpassing a cumulative revenue of KRW 634.1 billion by the fourth quarter of 2024. In 2023, the approval of the high-dose product, Joins F 300mg, is expected to enhance convenience of use and expand the product lineup, further solidifying its position in the osteoarthritis market.

[Ginexin-F] Blood circulation improvement and cognitive function enhancement agent with ginkgo leaf ingredients
Ginexin F, a blood circulation and cognitive function enhancer, continues to maintain the number one market share in the ginkgo leaf sector, achieving a cumulative revenue of KRW 561.9 billion by the fourth quarter of 2024 since its launch. This product, developed using proprietary patented technology, extracts active ingredients such as ginkgolides from ginkgo leaves. It helps reduce blood viscosity and expand blood vessels. In 2021, the launch of the high-dose product, Ginexin F 240mg, improved patient convenience by allowing for once-daily dosing. Since its launch in 1992, the company has consistently worked to enhance consumer convenience. In addition, Ginexin launched "Rinexin" in 2010, which combines the antiplatelet agent cilostazol, improving its efficacy and receiving a positive response. In July 2020, the company launched "Rinexin SR" to improve patient compliance and convenience compared to the original Rinexin, thereby expanding its product lineup and solidifying its position in the domestic blood circulation disorder market.

[Rivastigmine Patch] A patch-type dementia treatment
In 2010, SK Chemicals developed the patch-type dementia treatment, Rivastigmine Patch (domestic product name: Windron), which obtained approval as the first generic in Europe in 2013. This achievement proved the company's exceptional technology, and it has consistently maintained the number one market share in Spain's generic market for the same active ingredient. The Company has been continuously expanding its overseas entry, obtaining approval in Australia and Colombia in 2016, Mexico and Jordan in 2017, Canada in 2018, U.S. FDA approval in 2019. In 2021, the company continued to expand its international presence by obtaining regulatory approval in Brazil.

[Mvix S] World's First Film-Type Erectile Dysfunction Treatment
In 2011, SK Chemicals introduced Mvix S, the world's first film-type erectile dysfunction treatment, followed by a high-dose film-type formulation in 2012, establishing a portfolio of various formulations. Mvix S is a product that innovatively changed the existing tablet into a film formulation, making it thin and light enough to fit in a wallet, maximizing the convenience of carrying and taking the medication, and receiving positive reviews in the market. In 2014, the Company further increased the convenience of taking the medication by dramatically reducing the dissolution speed and size through the improvement of the Mvix S formulation.

[Trast] Patch-type arthritis treatment with strong efficacy
Trast has grown into a representative brand in Korea as a patch-type arthritis treatment that has been consistently loved since its launch in 1996. It has the strength of minimizing the side effects of existing oral medications by directly attaching it to the joint area with pain and providing long-lasting efficacy for 48 hours with a single application. It maximized the persistence of the arthritis treatment effect by delivering the anti-inflammatory and analgesic drug piroxicam at the same concentration through the transdermal drug delivery system (TDDS) technology.

[SK Bioscience]
A. Status of major products, etc.

(Reference date: 2024.12.31) (Unit: KRW one million)

Type of Sales	Classification	Item	Sales revenue	Ratio
Product	Vaccine medicine	In-house vaccines, etc.	96,965	36.2%
Goods	Vaccine products, etc.	Boostrix, infusion solutions, etc.	53,001	19.8%
Others	Service sales, etc.	CDMO, etc.	117,579	44.0%
Total			267,545	100.0%

B. Price fluctuation trend of major products, etc. and reasons for price fluctuation

The sales prices of the Company’s products vary depending on various factors such as market conditions, government policies, fluctuations in raw material prices, and the prices of competing products. Therefore, price fluctuation trends are not provided separately.

[Vaccine Development/Commercialization]

In general, the price of vaccine products is determined according to the market or government demand in response to the outbreak of infectious diseases and the supply situation of vaccine companies.

[CDMO]

In the case of the CDMO/CMO business, prices are determined through mutual agreement with clients, considering market conditions and key contract terms.

[SK Multi-Utility]

In 2021, SK Chemicals established a new subsidiary, SK Multi-Utility, through a physical split-off to enhance its expertise and strengthen management efficiency by focusing on its core competencies in the utility supply business, including the electricity and steam businesses. The main products of the SK Multi-Utility business are heat (steam) and electricity, and it sells steam and electricity to customers within its supply area as a collective energy business operator and a deemed district electricity business operator.

SK Multi-Utility is investing in LNG combined heat and power facilities to specialize in the industrial power and steam supply business. The current power plant is in the trial operation stage, with completion scheduled for the first half of 2025.

3. Raw Materials and Production Facilities

A. Matters Concerning the Key Raw Materials

1) Status of the Purchase of Key Raw Materials

(Reference date: 2024.12.31) (Unit: KRW one million)

Division	Type of Purchase	Item	Purpose of Use	Amount of Purchase	Major Place of Purchase
Green Chemicals Biz.	Raw materials	PTA, MEG	Main raw material for the copolyester resin production	207,638	PTA - Hanwha Impact, Taekwang Industrial MEG - Lotte Chemical, SK networks, Korea Petrochemical Ind. Co., LTD.
	Raw materials	QTA, MeOH	Main raw material for the DMT production	143,162	QTA - Samnam Petrochemical MeOH - SK networks
Life Science Biz.	Raw materials	Polaprezinc, Febuxostat, Rivastigmine	Promac Tablet/Feburic Tablet/ Dementia Patch Main Raw Materials	8,899	Enzychem Life Sciences, Teijin, Shodhana
	Raw materials	Cellufine Sulfate, FBS, media	SKY Cellflu/SKY Zoster Raw Materials	12,488	Lonza, JNC Corporation, Serena

2) Trends in the Changes of the Major Raw Materials’ Prices

(1) Green Chemicals Biz.

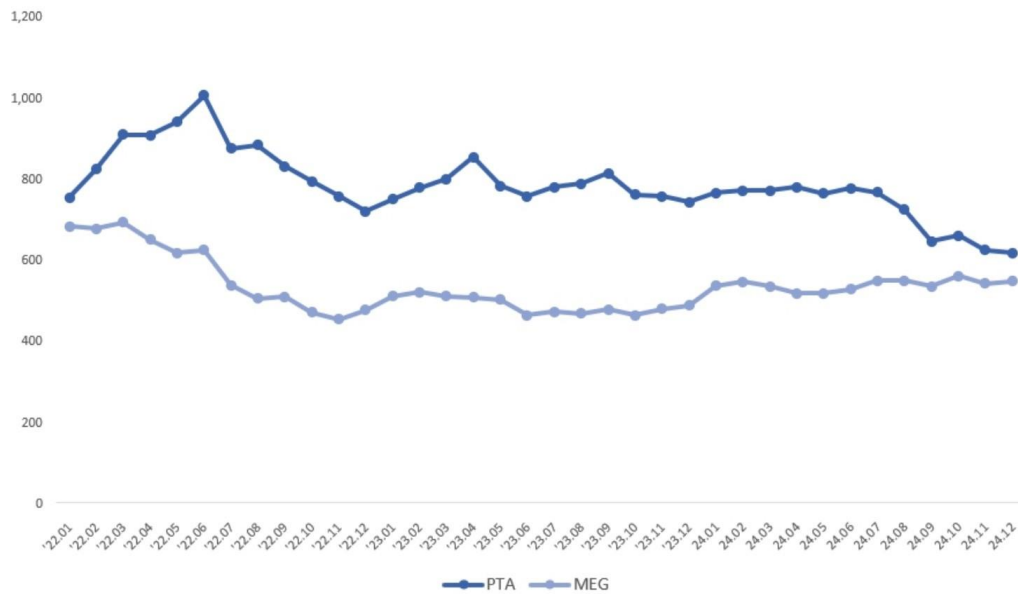
Green Chemicals Biz. uses raw materials such as PTA, MEG, and CHDM to produce high-performance Copolyester resins and Polyester adhesives. These raw materials are directly affected by oil prices and exchange rates. In particular, PTA (Purified Terephthalic Acid), a key raw material for Copolyester resin, has the characteristic of repeating booms and recessions depending on the global economy and supply and demand.

In the fourth quarter of 2024, international oil prices fluctuated in the low \$70 per barrel range, as rising factors such as increased geopolitical risks in major regions and the weakening of the dollar, and declining factors such as production increases outside of OPEC+ and the gradual easing of OPEC+ production cuts, intersected.

Additionally, due to the global economic downturn and weak demand for oil and chemicals, naphtha prices declined. For PX, PTA, and MEG, which are key raw materials for Green Chemicals Biz., the prices continued to fall in the third quarter and beyond, due to weak raw material prices (oil/naphtha) and sluggish macroeconomic trends in China, coupled with oversupply from major manufacturers maintaining continuous operations.

Price Trends of PTA and MEG

(Unit: \$/ton)



(Source: ICIS report)

(2) Life Science Biz.

- Pharmaceutical Business (Pharma Division)

The Pharmaceutical Business (Pharma Division) manufactures finished pharmaceutical products in specific forms that can be administered to humans, by introducing raw materials and materials into the production process, while complying with GMP standards. In the fourth quarter of 2024, while there was a slight upward trend in exchange rates, an increase in the supply price of pharmaceutical raw material imports was expected. However, the market remained stable without any significant fluctuations. The air and sea schedules and freight costs related to imports remained stable, and raw materials were imported on time without any issues related to the supply chain management (SCM).

- Vaccine Business (SK Bioscience)

The raw materials for SK Bioscience's biopharmaceuticals have low demand elasticity to price fluctuations and are less affected by economic trends. The prices for key raw materials are typically negotiated and determined through annual contracts. SK Biosciences presents the expected demand volume based on previous annual usage and business plans, while suppliers determine the discount rates for each item based on the list price, ultimately finalizing the annual unit price. Typically, the unit prices of raw materials and sub-materials are subject to price fluctuations due to factors such as the annual inflation rate and labor costs. For imported items, additional factors such as exchange rates, transportation costs, and customs agreements are also considered.

The overall supply and demand situation for raw materials remains stable. However, based on exchange rate fluctuations and increases in raw material and indirect costs, major global suppliers are raising their prices. As a result, there is a potential for an increase in raw material supply prices in 2025, and efforts are focused on mitigating these increases. For key raw materials, the annual forecast is consolidated to secure the quantities for 2025 in advance, enabling stable sourcing from the supply side.

Currently, the purchase prices applied do not reflect the expected price increase for 2025. SK bioscience is continuously monitoring the factors driving price increases and the supply of key raw materials in real-time. The company is strengthening its negotiating power and partnerships with suppliers to ensure a smooth supply of raw materials, making it a top priority to prevent any disruption in production.

[SK Multi-Utility]

1) Status of the Purchase of Key Raw Materials

(Reference date: 2024.12.31)

(Unit: KRW one million)

Division	Type of Purchase	Item	Purpose of Use	Amount of Purchase	Major Place of Purchase
Supply of utilities such as electricity and steam	Raw materials	Bituminous coal	Fuel for steam and electricity production	35,467	Hanil International
	Raw materials	Wood chips	Fuel for steam production	3,033	Sungjin Industrial, D&G Industry, etc.

2) Trends in the Changes of the Major Raw Materials' Prices

For the supply of utilities such as electricity and steam, steam and electricity are produced using bituminous coal and wood chips as raw materials. These raw materials have the characteristic of repeating booms and recessions depending on the global economy and supply and demand. In particular, bituminous coal, a major raw material, comes in various types depending on the origin/calorific value, and market fluctuations occur according to the supply status of major producing countries. Due to export restrictions stemming from the Russia-Ukraine war and the strengthening of the dollar, high price levels have been maintained. However, since the beginning of 2023, the market situation has stabilized, and prices have been continuously decreasing.

B. Matters Concerning the Production and Facilities

1) Production Capacity and Basis for

Calculation of Production Capacity

[SK Chemicals]

(1) Production capacity

Production capacity = Daily production capacity × Number of days of operation available

Business division	Item	The 8th Period	The 7th Period	The 6th Period
Green Chemicals Biz.	Copolyester resins, DMT, r-BHET, etc.	480,000 tons	471,000 tons	445,000 tons
	BON	13,000 tons	12,000 tons	15,000 tons
Life Science Biz.	Refining (Note 1)	749,195,000 tablets	758,369,000 tablets	758,369,000 tablets
	Patch	64,827,000 patches	65,621,000 patches	65,621,000 patches

(Note 1) This refers to the production capacity of the equipment itself, regardless of the type of refining process.

(2) Calculation basis for the production capacity

① Basis of calculation

Business division	Product	Daily Production Capacity	Available operating days for the current period
Green Chemicals Biz.	Copolyester resins, DMT, r-BHET, etc.	1,420 tons	338 days
	BON	36 tons	365 days
Life Science Biz.	Refining (Note 1)	3,057,938 T	245 days
	Patch	264,600 P	245 days

(Note 1) This refers to the production capacity of the equipment itself, regardless of the type of refining process.

② Average hours of operation

Business division	Product	Average Daily Hours of Operation	Average Number of Days of Operation Per Month	Actual operating days for the current period
Green Chemicals Biz.	Copolyester, DMT, r-BHET, etc.	24 hours	32 days	285 days
	BON	24 hours	35 days	311 days
Life Science Biz.	Tablet	8 hours	27 days	240 days
	Patch	8 hours	27 days	240 days

(3) Production Performance and Operation Rate

① Production performance

Business division	Item	The 8th Period	The 7th Period	The 6th Period
Green Chemicals Biz.	Copolyester, DMT, r-BHET etc.	414,000 tons	331,000 tons	377,000 tons
	BON	11,000 tons	11,000 tons	11,000 tons
Life Science Biz.	Refining (Note 1)	639,795,000 tablets	652,702,000 tablets	730,204,000 tablets
	Patch	38,178,000 patches	39,374,000 patches	41,112,000 patches

(Note 1) In the case of refining, there are various types, and the production processes and production times differ for each type. As a result, the production volume is inevitably lower compared to the equipment's production capacity. As for the operation rate of tablet items, note that the operation rate of the current period is the correct figure, not the production volume relative to the production capacity.

② Operation rate

Business division	Item	Available operating days for the current period	Actual operating days for the current period	Average Operation Rate
Green Chemicals Biz.	Copolyester, DMT, r-BHET, etc.	338 days	285 days	84.4%
	BON	365 days	311 days	85.2%
Life Science Biz.	Tablet	245 days	240 days	98.0%
	Patch	245 days	240 days	98.0%

[SK Bioscience]

(1) Production Capacity, Production Output, and Utilization Rate

Based on the drug substance, the production capacity is calculated considering the number of producible days and the process period (cycle) of the representative product for each suite, and the capacity utilization rate is calculated by reflecting the production performance.

- Andong L House

Classification	The 7th Period	The 6th Period	The 5th Period
Production capacity	572 batches	481 batches	494 batches
Production performance	215 batches	269 batches	110 batches
Operation rate	37.6%	55.9%	22.3%

Classification	The 7th Period	The 6th Period	The 5th Period
Production capacity	147 batches	109 batches	75 batches
Production performance	50 batches	50 batches	53 batches
Operation rate	34.0%	45.9%	70.7%

[SK Multi-Utility]

(1) Production capacity

Production capacity = Daily production capacity × Number of days of operation available

Business division	Item	The 4th period	The 3rd Period	The 2nd Period
Supply of utilities such as electricity and steam	Steam	2,190,000 tons	2,190,000 tons	2,190,000 tons
	Previous period	237,000 MWh	237,000 MWh	237,000 MWh

(2) Calculation basis for the production capacity

① Basis of calculation

Business division	Product	Daily Production Capacity	Available operating days for the current period
Supply of utilities such as electricity and steam	Steam	6,000 tons	365 days
	Previous period	648 MWh	365 days

② Average hours of operation

Business division	Product	Average Daily Hours of Operation	Average Number of Days of Operation Per Month	Actual operating days for the current period
Supply of utilities such as electricity and steam	Steam	24 hours	30 days	365 days
	Previous period	24 hours	21 days	250 days

(3) Production Performance and Operation Rate

① Production performance

Business division	Product	The 4th period	The 3rd Period	The 2nd Period
Supply of utilities such as electricity and steam	Steam	1,495,000 tons	1,458,000 tons	1,484,000 tons
	Previous period	26,000 MWh	12,000 MWh	- (Note 1)

(Note 1) Due to the rise in key raw material prices, electricity was not produced using in-house facilities.

② Operation rate

Business division	Product	Available operating days for the current period	Actual operating days for the current period	Average Operation Rate
Supply of utilities such as electricity and steam	Steam	365 days	365 days	100.0%
	Previous period	365 days	250 days	68.5%

2) Status of Production and Facilities, etc.

[SK Chemicals]

The Company's main places of business are as follows.

Place of Business	Contents of the Main Businesses	Location
Pangyo Head Office	Company-wide management and marketing, R&D	310 Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do
Ulsan Plant	Copolyester resin production, etc.	718 Cheoyong-ro, Nam-gu, Ulsan-si, Gyeongsangnam-do
Cheongju S HOUSE	Pharmaceutical production	149 Sandan-ro, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do

The Company's facilities and equipment include land, buildings, structures, machinery, etc., and the details of the book value as of the end of the current period are as follows.

(Reference date: 2024.12.31)

(Unit: KRW one million)

Classification	Beginning of period	Trust Agreement	Disposed	Depreciation	Impairment (Note 1)	Others (Note 2)	End of period
Land	153,043	-	(5)	-	-	-	153,038
Building	182,321	13,200	(449)	(6,954)	(1,466)	23,909	210,561
Structure	88,236	11,226	(41)	(2,835)	(1,285)	12,238	107,539
Mechanical equipment	165,936	26,148	(30)	(33,616)	(1,123)	26,143	183,458
Vehicles and transport equipment	205	-	-	(87)	-	-	118
Other tangible assets	19,437	2,125	(3)	(6,197)	-	684	16,046
Assets under construction in progress	77,241	10,796	-	-	-	(63,921)	24,116
Machineries in transit	6,889	159	-	-	-	(5,404)	1,644
Total	693,308	63,654	(528)	(49,689)	(3,874)	(6,351)	696,520

(Note 1) Impairment of idle assets at the Ulsan plant has been recognized.

(Note 2) It consists of the reclassification to the main account of construction-in-progress assets and the reclassification to intangible assets.

※ For detailed information on tangible assets, please refer to "III. Matters Concerning Finance," specifically "5. Notes to Financial Statements," under "12. Tangible Assets."

[SK Bioscience]

SK Bioscience's main places of business are as follows.

Region	Place of Business	Contents of the Main Businesses	Location
Domestic	Pangyo Head Office	R&D, Corporate Management, Marketing, and Business Development	310 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do
	Andong L House	Production, wholesale and retail of pharmaceuticals	150 Saneopdanji-gil, Poongsan-eup, Andong-si, Gyeongsangbuk-do
	Hwaseong	Storage of raw materials and completed products	184beon-gil, Jeongmunsongsan-ro, Yanggam-myeon, Hwaseong-si, Gyeonggi-do
Overseas	SK bioscience USA, Inc.	Biotechnology development	43 Thorndike St, STE 2-1, Cambridge, MA 02141
	SK bioscience Germany GmbH	Holding Company	Karl-Hermann-Flach-Straße 25, 61440 Oberursel (Taunus)
	IDT Biologika GmbH	Pharmaceutical manufacturing	Am Pharmapark, 06861 Dessau-Roßlau, Germany
	IDT Biologika Corporation	Pharmaceutical manufacturing	1405 Research Blvd, Rockville, MD 20850
	Technik-Energie-Wasser Servicegesellschaft mbH	Other Services	Am Pharmapark, 06861 Dessau-Roßlau, Germany

SK Bioscience's facilities and equipment consist of land, buildings, structures, machinery, etc.

(Reference date: 2024.12.31)

(Unit: KRW one million)

Classification	Beginning of period	Trust Agreement	Disposed	Depreciation	Changes in the scope of consolidation	Others (Note 1)	End of period
Land	45,280	-	(1,805)	-	26,696	1,136	71,307
Building	123,276	237	(604)	(5,909)	234,900	8,685	360,585
Structure	1,039	-	-	(2,096)	59,038	7,321	65,302
Mechanical equipment	55,841	5,786	(159)	(17,593)	123,018	7,933	174,826
Vehicles and transport equipment	39	-	(11)	(18)	42	43	95
Other tangible assets	5,175	470	(2)	(4,912)	64,214	4,589	69,534
Assets under construction in progress	64,517	152,457	(58)	-	19,495	(11,788)	224,623
Machineries in transit	1,122	5,528	-	-	-	-	6,650
Total	296,289	164,478	(2,639)	(30,528)	527,403	17,919	972,922

※ An objective market value assessment of major tangible assets was not possible, so it has been omitted.

(Note 1) It includes the reclassification to the main account of construction-in-progress assets and the effects of exchange rate fluctuations.

[SK Multi-Utility]

SK Multi-Utility's main places of business are as follows.

Place of Business	Contents of the Main Businesses	Location
Ulsan Head Office	Steam and electricity production	718 Cheoyong-ro, Nam-gu, Ulsan-si, Gyeongsangnam-do

SK Multi-Utility's facilities and equipment consist of land, buildings, structures, and machinery, etc.

(Reference date: 2024.12.31)

(Unit: KRW one million)

Place of Business	Land	Building	Structure	Mechanical equipment	Vehicles and transport equipment	Other Tangible assets	Total
Ulsan Head Office	26,582	3,622	30,757	17,080	-	528,206	606,247

(2) Ongoing investments and future investment plans

[SK chemicals]

In March 2023, the Company's Green Chemicals Biz. signed an asset purchase agreement with Shuye, a Chinese green materials specialized company, to establish a production system for chemically recycled raw materials and chemically recycled PET. Through this investment, the Company has completed the recycling plastic value chain, starting from circular recycling raw materials to circular recycled PET and circular recycled copolyester. This ensures the sustainability of the core business, copolyester, and lays the foundation for new growth. Through the currently secured production and facility operations, the Company plans to quickly validate its proprietary technology, accelerate investment in domestic depolymerization facilities, and continuously identify business partners to build a global production infrastructure. The Life Science Business will strengthen its business competitiveness in key areas based on stable operations, while securing visible results from open innovation and rebuilding the foundation for R&D growth. Additionally, the Company plans to pursue medium- to long-term value expansion strategies, including the expansion of CDMO (Contract Development and Manufacturing Organization) and the creation of new business opportunities.

[SK Bioscience]

The subsidiary, SK bioscience, signed a Memorandum of Understanding (MOU) with Gyeongsangbuk-do and Andong-si in June 2021 to expand the factory and site for investment, aiming to become a global vaccine production hub with top-tier production facilities. In November 2023, SK bioscience decided to expand the L House production facility for the commercial production of the next-generation pneumococcal vaccine, which is being jointly developed with Sanofi, continuing its ongoing investment efforts. Additionally, SK bioscience plans to acquire approximately 99,130 m² of land in the Gyeongbuk Bio 2nd General Industrial Complex, located near the L House site, for future use in various business ventures.

In addition to the Andong L House, SK bioscience signed a land purchase agreement with the Incheon Free Economic Zone Authority (IFEZ) in December 2021. The company plans to build a global R&PD (Research & Process Development) center on a 30,414 m² plot of land in the 7th section of the Incheon Techno Park expansion area, located in Songdo, Incheon. SK bioscience intends to expand its R&D and production infrastructure, which is currently centered in Pangyo and Andong, Gyeongsangbuk-do. The newly established global R&PD center will house research labs, pilot plants, and facilities for basic research, process development, and production in the vaccine and biotech fields. Through this, SK bioscience aims to actively expand its bio CDMO business, secure new platforms, and strengthen collaborations with international organizations, domestic and global biotech companies, and research institutions.

Additionally, SK bioscience signed an agreement on June 27, 2024, to acquire a controlling stake in IDT Biologika, a CMO (Contract Manufacturing Organization) and CDMO (Contract Development and Manufacturing Organization) specialized company, which is part of the global pharmaceutical and biotech company Klocke Group based in Germany. IDT Biologika, established in 1921, has over 100 years of expertise and capabilities, with a track record recognized by more than 10 key pharmaceutical regulatory authorities, including those in the United States and Europe. Through this equity acquisition, SK bioscience has secured manufacturing infrastructure compliant with cGMP (current Good Manufacturing Practices) and BSL-3 (Biosafety Level 3) standards. Based on this, the company has laid the foundation to expand its portfolio targeting advanced markets such as the United States and Europe, while also positioning itself to enter new biotech sectors.

As a CDMO company, IDT Biologika continues to maintain and strengthen its quality and facility competitiveness to reinforce trust with existing customers, meet their needs, and secure opportunities for onboarding new clients in its core business areas, including vaccines, biologics, and gene therapies. The company is also exploring and implementing various medium- to long-term growth strategies, including seeking strategic investment opportunities for expansion into new sectors.

[SK Multi-Utility]

SK Multi-Utility is currently making the following investments at its Ulsan plant to specialize in the industrial power and steam supply business, which are scheduled to be completed in the first half of 2025.

(Unit: year, KRW 100 million)

Classification	Period of Investment	Name of Investment	Total Investment Amount	Amount of Investment Executed	Amount of Investment to be Executed
Multi-Utility Business	2022 - 2025	LNG cogeneration facilities	6,200	5,472	728

※ The investment schedule and amount have changed due to significant cost increases and inflation.

4. Sales and Contracts Performance

A. Sales performance (based on the consolidated financial statements)

1) Performance by sales type

(Reference date: 2024.12.31)

(Unit: KRW one million)

Business division	Type of Sales	Item	The 8th Period	The 7th Period	The 6th Period

			Sales revenue	Ratio	Sales revenue	Ratio	Sales revenue	Ratio
Green Chemicals Biz.	Product	Copolyester, DMT, etc.	1,385,990	79.8%	1,240,106	70.9%	1,315,039	71.9%
	Goods		30,154	1.7%	9,138	0.5%	9,220	0.5%
	Others		57,466	3.3%	35,955	2.1%	77,687	4.2%
	Subtotal		1,473,610	84.8%	1,285,199	73.5%	1,401,947	76.6%
Life Science Biz.	Product	Vaccine, tablet, patch, etc.	302,286	17.4%	314,421	18.0%	407,064	22.3%
	Goods		199,125	11.5%	186,737	10.7%	116,098	6.3%
	Others		123,364	7.1%	244,397	14.0%	247,498	13.5%
	Subtotal		624,775	36.0%	745,554	42.6%	770,659	42.1%
Others	Product	Others	(327,051)	-18.8%	(266,112)	-15.2%	(297,761)	-16.3%
	Goods		(18,928)	-1.1%	(15,161)	-0.9%	(2,416)	-0.1%
	Others		(15,627)	-0.9%	(703)	-0.0%	(43,237)	-2.4%
	Subtotal		(361,607)	-20.8%	(281,975)	-16.1%	(343,414)	-18.8%
Total			1,736,779	100.0%	1,748,778	100.0%	1,829,191	100.0%

※ Others are internal transaction sales amount, etc.

2) Performance by sales region

(Reference date: 2024.12.31)

(Unit: KRW one million)

Business division	Form	Classification	The 8th Period	The 7th Period	The 6th Period
Green Chemicals Biz.	Copolyester, DMT, etc.	Export	1,072,895	925,217	1,056,129
		Domestic consumption	400,716	359,982	345,818
		Total	1,473,611	1,285,199	1,401,947
Life Science Biz.	Vaccine, tablet, patch, etc.	Export	172,151	292,314	268,419
		Domestic consumption	452,625	453,241	502,241
		Total	624,775	745,554	770,660
Others	-	Export	(231,999)	(191,128)	(275,694)
		Domestic consumption	(129,608)	(90,848)	(67,720)
		Total	(361,607)	(281,975)	(343,414)
Total		Export	1,013,047	1,026,403	1,048,853
		Domestic consumption	723,732	722,375	780,338
		Total	1,736,779	1,748,778	1,829,191

※ Others are internal transaction sales amount, etc.

B. Sales channels, methods, and related activities (including major consolidated subsidiaries)

1) Sales organizations

Business division	Sales organizations
Green Chemicals Biz.	Green Materials Business Division, Functional Materials Business Division, Recycling Business Division, SK Shantou, SK CA, SK Chemicals GmbH, SK Environmental Materials (Shanghai), SK Environmental Materials (Yantai), Japan Branch, SK Chemicals Malaysia.

Life Science Biz.	(Pharma Business Division) Marketing Headquarters 1–4, (SK bioscience) Marketing Division, Business Development Headquarters, BD2 Division, BD3 Division.

2) Sales channel

- Domestic, Local, Direct Export

3) Sales method and conditions

Sales method	Conditions for the payment collection
Domestic consumption	Payment in cash and promissory note, etc.
Local and direct exports	Payment via letter of credit, etc.

4) Sales strategy

Business division	Sales organizations		Sales strategy
Green Chemicals Biz.	Green Materials Business Division		- Development and expansion of sales opportunities for high-functional, heat-resistant Copolyester with high transparency and moldability - Pursuing customer diversification to preoccupy the eco-friendly, high-functional Copolyester market - Expanding market size through stable and competitive raw material procurement and supply
	Functional Materials Business Division		- Expanding differentiated products through continuous discovery of new items - Expanding customers through new application development and maximization of cost competitiveness
	Recycling Business Division		- Expansion of applications and strengthening of overseas marketing - Expanding new sales channels and markets through maximizing cost competitiveness - Developing applications for existing products and developing related products
Life Science Biz.	Pharma Business Division (Marketing Headquarters 1–4),		- Developing marketing activities centered on hospitals and clinics - Explore new channels by entering markets overseas - Conduct accurate target marketing based on market segmentation - Strengthen the organization via specialization and segmentation of the hospital organization clients - Creating new business opportunities by securing the distribution quality of pharmaceutical products.
	SK bioscience	(SK bioscience) Marketing Division, Business Development Headquarters, BD2 Division, BD3 Division	- Developing marketing activities centered on hospitals and clinics - Conduct accurate target marketing based on market segmentation - Strengthen the organization via specialization and segmentation of the hospital organization clients - Participating in domestic government bids - Expand to the public bidding market based on WHO PQ certification - Enter LMIC markets by cooperating with global initiatives - Attracting new customers through discussions on strengthening partnerships, technology development status, Capa., and expansion progress - Technology Development Status, Capacity (Capa). Attracting new customers through discussions on expansion progress and other related topics
		CDMO (Project Management, Commercial)	- Project cost estimation and management, preparation of work packages, and monitoring of progress - Project reporting and management of key issues (Escalation) reporting. - Overall management of project-related tasks and serving as the contact point - Establishing plans and defining key milestones - Proposal writing, pricing, and contract negotiations - Industry trend analysis and strengthening market positioning - Identifying new business opportunities and building customer relationships
			- Developing strategic partnerships with key customers in alignment with long-term business goals

[SK Multi-Utility]

1) Sales organizations

Business division	Sales organizations
Supply of utilities such as electricity and steam	Power Operation Team, SK Multi-Utility

2) Sales channel

- Domestic consumption

3) Sales method and conditions

Sales method	Conditions for the payment collection
Domestic consumption	Cash payment, etc.

4) Sales strategy

Business division	Sales organizations	Sales strategy
Supply of utilities such as electricity and steam	Power Operation Team, SK Multi-Utility	- As a district energy provider, supplying stable and competitive heat (steam) and other utilities within the designated area

C. Orders**[SK Chemicals]**

- Not applicable

[SK Bioscience]

(Reference date: 2024.12.31)

(Unit: KRW one million)

Item	Order Date	Delivery Date	Total Order Amount	Amount Delivered	Order Backlog
			Amount	Amount	Amount
Vaccine drug substance and finished product manufacturing	2022- (Varies by contract)	-2033 (Varies by contract)	316,956	204,629	112,327
CDMO	2015- (Varies by contract)	-2029 (Varies by contract)	2,047,856	1,180,864	866,992
Total			2,364,812	1,385,493	979,319

※ May change in the future depending on changes in market conditions and customer demand.

[SK Multi-Utility]

- Not applicable

5. Risk Management and Derivatives Transactions

A. Market Risk and Risk Management

The consolidated companies are exposed to certain risks in connection with their ongoing business operations. The main risks managed using derivatives are foreign exchange risk, commodity price risk, and interest rate risk. The consolidated companies' risk management strategies and methods are as follows.

(1) Fair value hedging for the foreign exchange risk

As of the end of the current period, the consolidated companies have currency swap contracts designated as the hedging instruments to hedge the foreign currency risk for the foreign currency bonds.

The terms of the above currency swap contracts are set to match the repayment schedule of the foreign currency bonds. The parties to the contract have executed currency swap contracts with cash as the collateral, which effectively reduces the credit risk associated with the contract (the counterparty's and the consolidated companies' credit risk). As a result, hedging was very effectively evaluated.

(2) Hedging cash flows for the interest rate risk

The consolidated companies borrow funds at the fixed and variable interest rates, and thus, are exposed to the interest rate risk. To manage the interest rate risk, consolidated companies maintain an appropriate balance between the fixed rate borrowings and the variable rate borrowings and have executed the interest-rate swap contracts. The consolidated companies exchange the difference calculated by applying the difference between the fixed and variable interest rates for the predetermined nominal principal under the interest-rate swap contract. Such a contract allows the consolidated companies to mitigate the risk of fluctuations in the cash flows of variable rate liabilities due to fluctuations in the interest rates. Hedging activities are regularly evaluated to appropriately adjust the interest rate status and the defined risk appetite to ensure that the optimal hedging strategy is applied.

(3) Other risk management activities

The consolidated companies are exposed to the foreign currency risk for some of their sales and purchases in international transactions. To mitigate such risk, the consolidated companies regularly monitor the net exposures in major currencies (the dollar, euro, and yen) based on projected sales and purchases over the next 12 months. Furthermore, the consolidated companies enter into foreign currency forward contracts to avoid such exposures.

For business and sales purposes, the consolidated companies have not designated such currency forward contracts for hedging. Therefore, the fair value fluctuations of most forward contracts are recognized in the profit or loss for the current period.

4) Market risk management policy

As of the end of the current period, the consolidated companies have established and are implementing fund management policies to ensure stable management activities by minimizing the risks caused by variables such as raw material and commodity prices and foreign exchange rates, the key details of which are as follows.

- ① Purpose of risk management and the basic principles
- ② Organization in charge and the tasks in charge
- ③ Transaction procedures and the reporting procedures

Notwithstanding the market risk management of the consolidated companies and the market risk management policies as described above, the Company cannot hedge all market risks and there is a limit to risk hedging.

B. Status of Transactions such as Derivatives and Put Back Options (including Major Consolidated Subsidiaries)
[SK Chemicals]

Details of the derivative instruments held by the Company as of the end of the current period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Details	End of the current period	End of the previous period
Derivative instruments not designated as the hedging instruments:			
Current assets in derivative financial instruments	Currency forward contracts	-	215,849
Current liabilities in derivative financial instruments	Currency forward contracts	3,531,729	81,934
	Call option granted to a third party	429,063	-
Non-current assets in derivative financial instruments	Polyall Co., Ltd.	8,784,996	5,055,776

As of the end of the current period, the Company executed derivative contracts with Hana Bank, etc., for the purpose of hedging the risk of exchange rate fluctuations arising from the foreign currency transactions. In this regard, the details of the derivative financial instruments that are not designated as hedging instruments by the Company are as follows.

<End of the current period>

(Unit: KRW one thousand)

Contracting party	Buy/Sell	Contract amount	Fair value
KEB, Hana Bank, etc.	Buy	-	-
	Sell	99,019,314	(3,531,729)
Total		99,019,314	(3,531,729)

<End of the previous period>

(Unit: KRW one thousand)

Contracting party	Buy/Sell	Contract amount	Fair value
KEB, Hana Bank, etc.	Buy	11,722,485	(31,372)
	Sell	15,486,100	165,287
Total		27,208,585	133,915

As of the end of the reporting period, the details of non-current derivative financial instruments not designated as hedging instruments by the Company are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Type	Fair value
Non-current derivative assets	Put Option on SK Chemicals Daejeong Co., Ltd. common stock (Note 1)	1,085,246
	HDC Polyol Co., Ltd. stock Put Option (Note 2)	7,699,750
Current derivative financial liabilities	Sale of the Call Option for convertible preferred stocks of Tiumbio Co., Ltd. (Note 3)	429,063
Total		9,214,059

(Note 1) This is a put option allowing the sale of SK Chemicals Daejeong Co., Ltd.'s subsidiary investment shares to Daejeong Chemicals & Metals Co., Ltd.

(Note 2) This is a put option allowing the sale of HDC Polyall Co., Ltd.'s affiliate investment shares to HDC Hyundai EP Co., Ltd.

(Note 3) This is a call option granting the right to a third party designated by Tiumbio Co., Ltd. to sell debt securities of Tiumbio Co., Ltd. to the Company.

[SK Bioscience]

As of the reference date of the report, the details of derivatives held by SK Bioscience are as follows.

(Unit: KRW one thousand)

Classification	End of the current period		End of the previous period	
	Assets	Liabilities	Assets	Liabilities
Derivative instruments not designated as the hedging instruments:				
Currency forward contracts	195	1,660,062	219,403	28,922

As of the date of preparation of this report, the details of the derivatives not designated as hedging instruments by SK Bioscience are as follows.

(Unit: USD, EUR, AUD, KRW thousand)

Classification	End of the current period	End of the previous period	
Contracting party	Hana Bank, etc.		
Buy/Sell	Sell	Sell	Buy
Contract amount	USD 26,014,577	USD 23,805,393	USD 314,746
	EUR 50,051,675	EUR 98,850	EUR 788,309
	AUD 661,527	AUD 289,141	
Valuation gain (loss)	(1,659,867)	204,268	(13,788)

[SK Multi-Utility]

- Not applicable

6. Major Contracts and R&D Activities

A. Major contracts in terms of management (summary)

[SK Chemicals]

As of the date of preparation, the Company's major ongoing business contracts consist of licensing agreements and other contracts. The key details are as follows:

1) Green Chemicals Biz.

Classification	Contractual counterparty	Purpose and details of the contract	Period of contract execution & contract period	Contract amount & payment method (criteria)*
License in contract	Covation Biomaterials LLC	PO3G manufacturing license and process/application technology patent contract	2021.06 - 2032 (until patent expiration)	Upfront technology fee, running royalty (a certain percentage of net sales)
License out contract	Capchem	Patent's non-exclusive license and transfer of technology for the secondary batteries' electrolyte additive	2021.08 - 2036.06	Upfront technology fee and running royalty (constant rate of contract product sales)
License out contract	Private	Technology evaluation contract for non-exclusive licensing of patented technology for bio-PESC substances	2021.09-2024.03	Upfront technology fee and patent maintenance fees

2) Life Science Biz. (Pharma business)

Classification	Item	Contractual counterparty	Target region	Contract execution date	Total contract amount	Amount received/paid	Progress, etc.
License in contract	SKP204	ITALFARMACO, ITF RESEARCH (Italy)	Korea	2021.01.28	(Note 1)	(Note 1)	Release after approval
	SKP205	Miravo Healthcare (Ireland)	Korea	2021.07.28	(Note 1)	(Note 1)	Release after approval
	SKP221	KOREA UNITED PHARM (Korea)	Korea	2022.06.28	(Note 1)	(Note 1)	Joint research in progress
	SKP231	Samcheong Pharmaceutical (Korea)	Korea	2023.01.17	(Note 1)	(Note 1)	Approval in progress
	SKP241	Yuhan Corporation, Addpharma Co., Ltd.	Korea	2024.02.20	(Note 1)	(Note 1)	Release after approval
	SKP243	Donghwa Pharmaceutical Co., Ltd.	Korea	2024.09.12	(Note 1)	(Note 1)	Ongoing joint research
Other contracts	Joint research	Standigm Inc.	Worldwide	2019.07.19	(Note 1)	(Note 1)	Joint research in progress
	Joint research	Deargen Inc.	Worldwide	2020.10.20	(Note 1)	(Note 1)	Contract terminated
	Fund investment	Korea Investment Partners Co., Ltd.	N/A	2020.11.18	(Note 1)	(Note 1)	Fund in operation
	Joint research	DR. NOAH Biotech Co., Ltd.	Worldwide	2020.11.24	(Note 1)	(Note 1)	Contract terminated
	Equity investment	Standigm Inc.	N/A	2021.05.14	(Note 1)	(Note 1)	Pre-IPO phase
	Equity investment	J2H Biotech Co., Ltd.	N/A	2021.07.29	(Note 1)	(Note 1)	Pre-IPO phase
	Fund investment	Sante Ventures	N/A	2021.09.14	(Note 1)	(Note 1)	Fund investment in progress
	Joint research	J2H Biotech Co., Ltd.	N/A	2021.11.01	(Note 1)	(Note 1)	Joint research in progress
	Equity investment	Oncobix Co., Ltd.	N/A	2021.11.18	(Note 1)	(Note 1)	Series B stage
	Joint research	Oncobix Co., Ltd.	N/A	2022.04.05	(Note 1)	(Note 1)	Contract terminated
	Joint research	inCerebro Co., Ltd.	N/A	2022.04.07	(Note 1)	(Note 1)	Contract terminated

(Note 1) The details have not been entered as they are trade secrets.

[SK Bioscience]

As of the date of preparation, the major business contracts entered into by SK bioscience consist of out-licensing/in-licensing agreements, joint development agreements, and others. The key details are as follows:

Classification	Item	Contractual counterparty	Target region	Contract execution date	Total contract amount	Amount received/paid	Progress, etc.
License out contract	Recombinant Factor VIII (Hemophilia treatment)	CSL	All regions excluding South Korea	2009.05	(Note 1)	(Note 1)	Commercialization in the U.S., Europe/Asia (by country), etc.
	Cell culture influenza vaccine bulk	GPO (Government Pharmaceutical Organization), BGT (Biogenetech Co., Ltd.)	Thailand	2023.08	US\$ 51M	(Note 1)	Local technology transfer/approval in progress
License in contract	Novavax COVID-19 vaccine Technology introduction	Novavax	Republic of Korea, Thailand, Vietnam	2021.02	(Note 1)	(Note 1)	Commercial production
Joint development contract	Next-generation pneumococcal vaccine	Sanofi	Worldwide	2014.03 (Note 2)	USD 45M + EU€ 350M (Note 3)	USD 45M + EU€ 50M	GBP410 : Commencement of global Phase 3 clinical trials GBP410-NextGen : Basic research
	Typhoid conjugate vaccine	IVI (International Vaccine Institute)	Worldwide	2013.04	(Note 1)	(Note 1)	Obtained export product approval WHO PQ certification
	COVID-19 vaccine (GBP510)	CEPI	-	2020.12	US\$ 10.0M	(Note 1)	Additional clinical studies are underway following the acquisition of domestic product approval
	Project research/development contract	(Coalition for Epidemic Preparedness Innovations)	-	2021.05	US\$ 200.1M	(Note 1)	
	COVID-19 vaccine (GBP510)	CEPI	-	2021.05	US\$ 200.1M	(Note 1)	Non-clinical trials are underway
	Project research/development additional support contract	(Coalition for Epidemic Preparedness Innovations)	-	2021.12	US\$ 57.6M	(Note 1)	
	Broad-spectrum mutant virus responsive vaccine (GBP511) Project research/development contract	CEPI (Coalition for Epidemic Preparedness Innovations)	-	2021.12	US\$ 57.6M	(Note 1)	Non-clinical trials are underway
	Development of the COVID-19 mRNA vaccine (GBP550)	GF (Gates Foundation)	-	2021.11	US\$1.6M	(Note 1)	Non-clinical trials completed and GF project concluded
	Nasal Spray	IAVI (International AIDS Vaccine Initiative)	-	2021.11	US\$ 4M	(Note 1)	Clinical sample production completed, non-clinical trials underway

	Japanese encephalitis virus/Lassa fever mRNA vaccine (GBP560, GBP570) development	CEPI (Coalition for Epidemic Preparedness Innovations)	-	2022.10	US\$ 140.0M	(Note 1)	Japanese encephalitis virus mRNA vaccine: Phase 1/2 clinical trials (Note 4) Lassa fever mRNA vaccine: Selection of candidate substance

(Note 1) Detailed information is not provided as it is considered business confidential

(Note 2) A revised contract was signed in December 2024

(Note 3) This is the total amount of milestone payments received in stages based on advance payments, development/approval, and commercialization.

(Note 4) Phase 1/2 clinical trials were initiated in February 2025.

[SK Multi-Utility]

As of the date of preparation, the major non-recurring business contracts entered into by SK Multi-Utility are as follows:

Contractual counterparty	Purpose and details of the contract	Period of contract execution & contract period	Contract amount
SK Ecoengineering Co., Ltd.	EPC construction contract	2022.06.30 - 2025.06.30	KRW 510 billion
Kookmin Bank	Ulsan CHP Plant construction	2023.06.02 - 2040.12.16	Agreed amount of KRW 530 billion

※For detailed status, refer to 'Detailed Table-4. Major Contracts in Terms of Management (Details)'.

B. R&D activities (including the major consolidated subsidiaries)

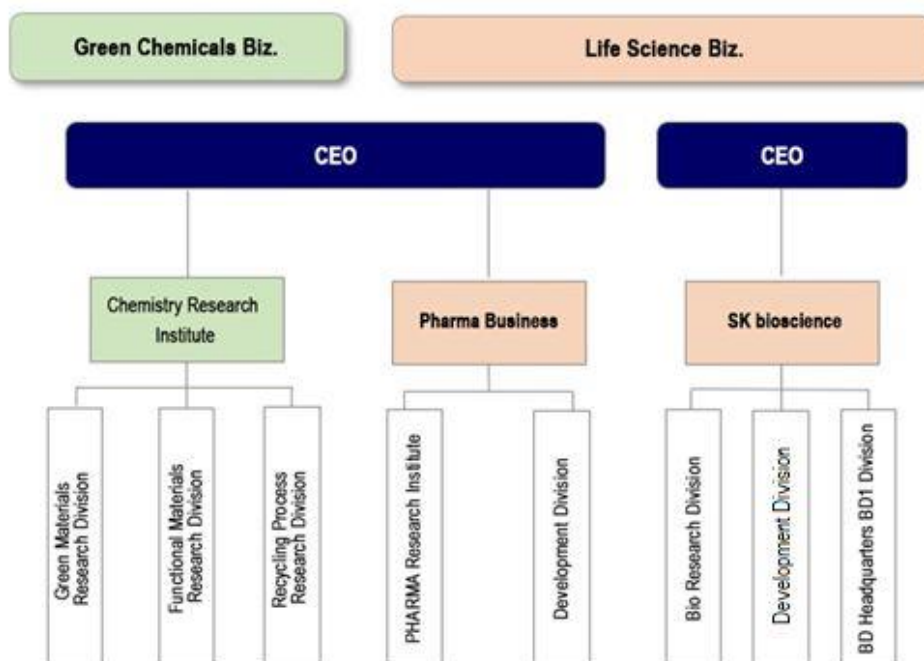
1) Overview of R&D activities

The Company's R&D organization consists of the Chemical Research Institute of Green Chemicals Biz., which is in charge of chemical product development, and the R&D Center of Life Science Biz. Pharma Business Division, which is in charge of pharmaceutical development. It is composed of the Research and Development Center of the Pharma Business Division. SK bioscience, a subsidiary, also has individual research institutes. Through the research organizations at both the headquarters and the subsidiary, the company is achieving continuous development results in the fields of chemicals, pharmaceuticals, and vaccines.

2) R&D organizations

(1) Research and Development Organizational Chart

[SK chemicals]



[IDT Biologika]

IDT Biologika's research and development organization is composed of the Development Department, which is responsible for process/analytical development and QC optimization.

※ Performed tasks / Duties

Process/analytical development and platform·QC optimization (Development)	- Providing process and analytical development services to clients in the clinical and pre-commercial stages - Optimizing platform technology for pandemic preparedness - Continuously improving QC methods in accordance with updates to GMP guidelines

(2) Status of Personnel in R&D Organizations

[SK Chemicals]

(Reference date: 2024.12.31)

(Unit: Number of persons)

Classification	Doctoral	Master's	Bachelor's	Technician	Total
R&D Center	4	40	26	5	75
Chemistry Research Institute	14	58	12	22	106
Total	18	98	38	27	181

※ The personnel above include all R&D personnel.

(Pharmaceutical/bio related key research personnel)

Position	Name	Task in charge	Professional background	Key research performance
Executive	Yoo Hun Seung	Pharma Research Institute Director	Seoul National University/Bachelor in Pharmacy, Master and PhD in Pharmacognosy	Not entered at request
Executive	Mun Jeong Hyun	Development Division Head	B.S. in Pharmaceutical Science, Seoul National University / M.S. in Pharmacy, Seoul National University	Not entered at request

[SK bioscience]

SK bioscience has a total of 315 research personnel, including 39 Ph.D. holders and 204 Master's degree holders, who are responsible for bio research, development, regulatory affairs, and clinical trials.

(Reference date: 2024.12.31)

(Unit: Number of persons)

Classification	Doctoral	Master's	Others	Total
Number of persons	39	204	72	315

(Pharmaceutical/bio related key research personnel)

Position	Name	Professional background	Key research performance

Global Business	CEO: Kim Hoon	Korea University, Agricultural Chemistry (B.A.), Korea University, Biochemistry (M.S.), Ajou University, Molecular Science (Ph.D.)	[Papers] - Immune persistence and response to booster dose of Vi-DT vaccine at 27.5 months post-first dose (2022, NPJ Vaccines. 7:12) - Influenza vaccines: Past, present, and future (Review) (2022, Rev Med Virol. 32(1):e2243) - Effective inactivated influenza vaccine for the elderly using a single-stranded RNA-based adjuvant (2021, Sci Rep. 11(1):11981) - Immunization with RBD-P2 and N protects against SARS-CoV-2 in nonhuman primates (2021, Science Advances. 7 : eabg7156) Immunogenicity, safety and reactogenicity of a Phase II trial of Vi-DT typhoid conjugate vaccine in healthy Filipino infants and toddlers: A preliminary report (2020, Vaccine. 4476-4483) Safety and immunogenicity of Vi-DT conjugate vaccine among 6-23-month-old children: Phase II, randomized, dose-scheduling, observer-blind Study (2020, EClinicalMedicine. 100540) Inactivated influenza vaccine formulated with single-stranded RNA-based adjuvant confers mucosal immunity and cross-protection against influenza virus infection(Vaccine 38 (2020) 6141-6152) - Evaluation of glycoprotein E subunit and live attenuated varicella-zoster virus vaccines formulated with a single-strand RNA-based adjuvant (2020, Volume8) Immunogenicity and safety of a 12-valent pneumococcal conjugate vaccine in infants aged 6-10 weeks: a randomized double-blind active-controlled trial(2020, Volume 63(7)) Assignment of opsonic values to pneumococcal reference serum 007sp and a second pneumococcal OPA calibration serum panel (Ewha QC sera panel B) for 11 serotypes (2020, Vaccine 38(8145-8153) - Comparison of antigenic mutation during egg and cell passage cultivation of H3N2 influenza virus (2020, Clin Exp Vaccine Res) Immunogenicity and safety of a new live attenuated herpes zoster vaccine (NBP608) compared to Zostavax® in healthy adults aged 50 years and older (2019, Vaccine. Vaccine. 3605-3610) A Randomized, Double-blind, Active-controlled Phase III Trial of a Cell Culture-derived Quadrivalent Inactivated Influenza Vaccine in Healthy South Korean Adolescents 6 Months to 18 Years of Age (2019, Pediatr Infect Dis J. e209-e215) Cricket paralysis virus internal ribosome entry site-derived RNA promotes conventional vaccine efficacy by enhancing a balanced Th1/Th2 response (2019 Vaccine 37(5191-5202)) Heterologous prime-boost vaccination with adenoviral vector and protein nanoparticles induces both Th1 and Th2 responses against Middle East respiratory coronavirus (2018, Vaccine. 3468-3476) - Vaccines, inspiring innovation in health (2018, Vaccine. 7430-7437) Effect of apoptosis-associated speck-like protein containing a caspase recruitment domain on vaccine efficacy: Overcoming the effects of its deficiency with hydroxide adjuvant (2018, Microbiol Immunol 1348-0421) - Development of a diagnostic system for detection of specific antibodies and antigens against Middle East respiratory syndrome coronavirus (2018, Microbiol Immunol. Immunol. 574-584) - A Randomized, Double-blind, Active-controlled Clinical Trial of a Cell Culture-derived Inactivated Trivalent Influenza Vaccine (NBP607) in Healthy Children 6 Months Through 18 Years of Age (2018, Pediatr Infect Dis J. 605-611) Sahastrabudde S2. Safety and immunogenicity of a Vi-DT typhoid conjugate vaccine: Phase I trial in Healthy Filipino adults and children., 10.1016 J (2018, Vaccine.05.038) Creation, characterization, and assignment of opsonic values for a new pneumococcal OPA calibration serum panel (Ewha QC sera panel A) for 13 serotypes(2018, Medicine (Baltimore)) - Comparative evaluation of a newly developed 13-valent pneumococcal conjugate vaccine in a mouse model (2017, Hum Vaccin Immunother. 1169-1176) Immunogenicity and safety of a cell culture-derived inactivated quadrivalent influenza vaccine (NBP607-QIV) HUMAN VACCINES & IMMUNOTHERAPEUTICS. (2017, VOL. 13, NO. 7, 1653-1660) - Immunogenicity and safety of a cell Culture-derived inactivated trivalent influenza vaccine(NBP607). (Vaccine 33. 5437-5444, 2015) The effect of lipopolysaccharide-induced obesity and its chronic inflammation on influenza virus-related pathology. (2015, Environmental Toxicology and Pharmacology. 40, 924-930) and others - Prophylactic and therapeutic vaccines for obesity. [National assignment] Supervisor of research - Development of mass production process and sample production for the COVID-19 vaccine based on genetic recombination technology (Korea Evaluation Institute Of Industrial Technology, 2020 - 2021) - Commercialization of human papillomavirus quadrivalent vaccine and development of human papillomavirus 10-valent vaccine (Ministry of Science, ICT and Future Planning - Biomedical Technology Development, 2015 - 2020)

			- Development of typhoid polysaccharide-protein conjugate vaccine production technology (Ministry of Health and Welfare - Infectious disease crisis response technology development, 2013 - 2018) - Commercialization of an influenza vaccine using cell culture technology (New Influenza universal ministerial project group (Korea Health Industry Development Institute), 2010 - 2016) - A study on virus vaccine development using the cell culture technology (rotavirus vaccine) (Ministry of Knowledge Economy, 2009 - 2013) - Development of early production technology for H1N1 influenza vaccine using animal cell culture technology (Ministry of Health and Welfare - Human Infection Response Study for Zoological Infectious Diseases, 2009 - 2010) - Smallpox vaccine development assignment (2007 - 2009) - Anthrax vaccine development assignment (2006 - 2008) and others [Notable patents] - Vero cell lines suspension-cultivated without serum and methods for preparing vaccine virus with those cell lines (date of registration: 2018-02-14) - MDCK cell lines suspension-cultivated without serum and methods for preparing vaccine virus with those cell lines (date of registration: 2015-12-09) - Manufacturing method for capsular polysaccharide having pneumococcal serotype (date of registration: 2019-01-28) - Multivalent pneumococcal polysaccharide-protein conjugate composition (date of registration: 2019-12-12)
Bio Research Division Head	Park Yong Wook	Hanyang University, Biochemistry/Molecular Biology, Bachelor's; Gwangju Institute of Science and Technology, Life Science, Master's	[Papers] Park, Y.W.; Kim, Y.H.; Jung, H.U.; Jeong, O.S.; Hong, E.J.; Kim, H.; Lee, J. Comparison of antigenic mutation during egg and cell passage cultivation of H3N2 influenza virus. Clin. Exp. Vaccine Res. 2020, 9, 56-63. [Patents] - MDCK-derived cell lines adapted to serum-free culture and suspension culture and method for preparing vaccine virus using the cells. (KR10-1577745, 2015- 12-09)
Head of Bio Office 1	Lee Gun-se	Korea University, Life Sciences (B.A.), Korea University, Molecular Biology (M.S.), Catholic University, Biotechnology (Ph.D.).	[Papers] Intranasal immunization with the recombinant measles virus encoding the spike protein of SARS-CoV-2 confers protective immunity against COVID-19 in hamsters. Vaccine, 2024; 42(2), 69-74. - Recent advances in vaccines and diagnostics against Middle East respiratory syndrome coronavirus. Acta Virologica, 2020; 64(2), 251-260. Development of a diagnostic system for detection of specific antibodies and antigens against Middle East respiratory syndrome coronavirus. Microbiology and Immunology. 2018; 62(9), 574-584. [Patents] - MDCK cell lines suspension-cultivated without serum and methods for preparing vaccine virus with those cell lines (date of registration: 2015-12-09) - Vero cell lines suspension-cultivated without serum and methods for preparing vaccine virus with those cell lines (date of registration: 2018-02-14) - Method for producing hepatitis A virus and hepatitis A virus produced according to the above method. (Registration date: 2021-07-08) - 4 domestic applications, 7 domestic registrations, 39 international applications, 45 international registrations [Performance of assignment] Supervisor of assignment - RIGHT FUND, Development of COVID-19 vaccine candidates using viral vector system and efficacy evaluation in animal model (2020-2021) - Vaccine commercialization technology development project, development of high-efficiency production processes for hepatitis A vaccine and vaccine efficacy evaluation (2020-2022) - Vaccine commercialization technology development project, non-clinical safety and efficacy evaluation of hepatitis A vaccine (2022-2025)
Head of Bio Office 2	Shin Jin-hwan	Korea University, Genetic Engineering (B.A.), KAIST, Molecular Genetics (M.S.), Sungkyunkwan University, Molecular Pharmaceutics (Ph.D.)	[Papers] Immunogenicity and safety of a 12-valent pneumococcal conjugate vaccine in infants aged 6-10 weeks: a randomized double-blind active-controlled trial. Clinical and experimental pediatrics. 2020; 63 (7), 265 Comparative evaluation of a newly developed 13-valent pneumococcal conjugate vaccine in a mouse model. Human vaccines & immunotherapeutics. 2017; 13 (5), 1169-1176 [Patents] - 19 domestic applications, 177 overseas applications, 3 domestic registrations, and 72 overseas registrations - Notable patents: US 9,981,029, US 9,636,392, US 10,058,607, US 10,034,949

Head of Bio Office 3	Lee Soo Jin	Cheongju University, Genetic Engineering, Bachelor's; Cheongju University, Genetic Engineering, Master's; Catholic University, Biotechnology, Doctoral	[Papers] - Evaluation of glycoprotein E subunit and live attenuated varicella-zoster virus vaccines formulated with a single-strand RNA-based adjuvant. Immun Inflamm Dis. 2020 Jun;8(2):216-227. doi: 10.1002/iid3.297. [Patents] - 8 domestic applications, 17 international applications, 2 domestic registrations (10-1577745, 10-1831284), 7 international registrations (2614140, 6067560, 323937, 2011299761, IDP000053063, 104862267 B) 9447383) [Performance of assignment] Supervisor of assignment - RIGHT FUND, Development of a cost-effective Hepatitis A vaccine on a low-footprint, low-cost platform, (2020)
Medical Affairs Department Head	Kim Hye Yeong	Seoul National University, Medicine, Bachelor's and Master's; Seoul National University, Medicine, Doctoral	-
Development Division Head Additionally, Head of the Clinical Approval Development Department	Ryu Ji-hwa	Duksung Women's University, Pharmaceutical Sciences (B.A.), Duksung Women's University, Pharmacy (M.S.) Sungkyunkwan University, College of Pharmacy, Clinical Social Pharmacy (Ph.D.)	[Papers] - Safety and immunogenicity of Vi-DT conjugate vaccine among 6-23-month-old children: Phase II, randomized, dose-scheduling, observer-blind Study. EClinicalMedicine. 2020 - Immunogenicity and safety of a 12-valent pneumococcal conjugate vaccine in infants aged 6-10 weeks: a randomized double-blind active-controlled trial. Clin Exp Pediatr. 2020 - Immunogenicity, safety and reactogenicity of a Phase II trial of Vi-DT typhoid conjugate vaccine in healthy Filipino infants and toddlers: A preliminary report. Vaccine. 2020 - Safety and immunogenicity of a Vi-DT typhoid conjugate vaccine: Phase I trial in Healthy Filipino adults and children. Vaccine. 2018 - Activation of phosphatidylinositol 3-kinase by oxidative stress leads to the induction of microsomal epoxide hydrolase in H4IIE cells. Toxicol Lett. 2001 - The essential role of phosphatidylinositol 3-kinase and of p38 mitogen-activated protein kinase activation in the antioxidant response element-mediated rGSTA2 induction by decreased glutathione in H4IIE hepatoma cells. Mol Pharmacol. 2000 - Role of glucose utilization in the restoration of hypophysectomy-induced hepatic cytochrome P450 2E1 by growth hormone in rats. Chem Biol Interact. 2000 [Related experience] - Conducted over 20 Phase 1, over 10 Phase 2, and over 20 Phase 3 clinical trials - 2016, member of the Vaccine Clinical Evaluation Guidelines Development Task Force (TFT) at the Ministry of Food and Drug Safety - 2016-2017 Served as the Chair of the Research Division of the Korean Clinical Development Research Society

[IDT Biologika]

IDT Biologika has 76 research personnel, including 13 Ph.D. holders and 38 Master's degree holders, responsible for bio research, development, regulatory affairs, and clinical trials

(Reference date: 2024.12.31)

(Unit: Number of persons)

Classification	Doctoral	Master's	Others	Total
Number of persons	13	38	25	76

(Pharmaceutical/bio related key research personnel)

Position	Name	Professional background	Key research performance

Scientific Advisor	Andreas Neubert	Ph.D., Veterinary Virology from the University Leipzig	[Papers] Fabianska, I., Borutski, S., Richter, B., Tran, H. Q., Neubert, A., & Mayer, D. (2021). LABRADOR-A computational workflow for virus detection in high-throughput sequencing data. <i>Viruses</i>, 13(12), 2541. Braun, C., Thurmer, A., Danie, R., Schultz, A. K., Bulla, I., Schirmeier, H., Mayer, D., Neubert, A., & Czerny, C. P. (2017). Genetic variability of Myxoma virus genomes. <i>Journal of Virology</i>, 91(2). Vos, A., Freuling, C. M., Hundt, B., Kaiser, C., Nemitz, S., Neubert, A., Nolden, T., Teifke, J. P., Te Kamp, V., Ulrich, R., Finke, S., & Muller, T. (2017). Oral vaccination of wildlife against rabies: Differences among host species in vaccine uptake efficiency. <i>Vaccine</i>, 35(32), 3938-3944. Beckert, A., Geue, L., Vos, A., Neubert, A., Freuling, C., & Muller, T. (2009). Genetic stability (in vivo) of the attenuated oral rabies virus vaccine SAD B19. <i>Microbiology and Immunology</i>, 53(1), 16-21.
Senior Director Development	Mathias Kahl	M.S., University of Applied Science (HTW Berlin)	[Papers] Kahl, M., Hesse, F., Schlupp, C., Kaufmann, M., & Evers, A. (2018). Mabfilin and Fabfilin-New antibody-scaffold fusion formats for multispecific targeting concepts. <i>mAbs</i>, 10(5), 719-730. https://doi.org/10.1080/19420862.2018.1462433 [Patents] European Patent Office. (2023). Novel human programmed death ligand 1 (PD-L1) specific binding molecules (Patent No. EP4326749A1). United States Patent and Trademark Office. (2024). Affinity ligands for the purification and detection of ubiquitin mutants (Patent No. US20240309056A1).

[SK Multi-Utility]

- Not applicable

(3) R&D Expenses

[SK Chemicals]

(Reference date: 2024.12.31)

(Unit: KRW one million)

Account		The 8th Period	The 7th Period	The 6th Period
Raw Material Costs		1,856	2,399	2,294
Labor Costs Case(s)		17,040	17,266	17,302
Depreciation		5,990	6,152	5,258
Consignment service cost		4,831	4,603	5,312
Others		15,431	13,750	12,101
Total R&D expense		45,149	44,170	42,267
Accounting	Selling and administrative expenses	45,135	44,016	41,582
	Cost of sales	13	153	685
	Development cost (intangible assets)	-	-	-
R&D Expenses / Sales Ratio (%) [Total R&D Expenses ÷ Current Period Sales × 100]		3.4	3.6	3.4

[SK bioscience]

(Reference date: 2024.12.31)

(Unit: KRW one million)

Account		The 7th Period	The 6th Period	The 5th Period
Raw material expenses		17,066	37,681	18,404
Labor cost		28,482	29,045	31,589
Selling, general and administrative expenses, etc.		60,627	50,555	63,002
Total R&D expense		106,175	117,281	112,995
Government subsidies		(447)	(611)	(627)
External subsidies		(29,315)	(30,927)	(53,244)
Total subsidies		(29,762)	(31,538)	(53,871)
Amount after deducting the subsidies		76,413	85,743	59,124
Accounting	Selling and administrative expenses	71,353	85,743	57,960
	Development cost (intangible assets)	5,060	-	1,164
	Total amount accounted	76,413	85,743	59,124
R&D expenses / sales amount ratio (%) [Total R&D cost ÷ Sales amount for the current period × 100]		39.7	31.7	24.7

※ The ratio was calculated based on the total amount of R&D expenses before the deduction of external subsidies, etc.

[SK Multi-Utility]

- Not applicable

3) R&D and the patent application performance

(1) R&D performance

<Green Chemicals Biz.>

Year	Research task	Research results and the expected effects
2022	Established a dedicated facility for PO3G and started mass production	A dedicated facility for 100% bio-based polyol, PO3G, was established and successfully underwent trial operations, entering full-scale production in May 2022. PO3G, which has been evaluated to reduce greenhouse gas emissions by 40% compared to conventional petrochemical-based polyol production processes in the life cycle assessment (LCA), offers an environmentally friendly solution for polyurethane materials. It has been adopted in automotive interior materials, fashion, and sports materials, and full-scale supply has begun.
	SKYPEL TPEE for moisture-permeable waterproof films Material commercialization	The demand for breathable films is expanding due to the growth of the outdoor market influenced by COVID-19, and SKYPEL TX products are a competitive material in this segment. With high breathability, excellent water resistance, and washing durability, SKYPEL TX products have begun to be sold as materials for military and general functional apparel
2021	Commercialized PO3G for main applications	SKYPEL TX products are being applied in various fields, including spandex, waterproof breathable clothing, synthetic leather, 3D printing, and cushioning materials for footwear. They have been adopted by global fashion and sports brands, as well as domestic automobile manufacturers, and are set to be launched in their products.
	ECOTRIA Claro-CR50 & PN-CR50 grade development completed	In response to the high demand for recycling in the cosmetics packaging sector, SKYPEL has developed a product that includes 50% chemically recycled raw materials for the grades currently being sold (Claro-CR50 & PN-CR50). The technology has been perfected to meet the strict quality control standards required for cosmetics-grade applications. Production and sales are scheduled for the second half of 2021 at continuous process commercial facilities.
	ECOTRIA Claro-CR50 batch reaction commercial production was successful and the commercial sales began	The cosmetics-grade Claro-CR50, which contains 50% chemically recycled raw materials, was successfully produced on batch commercial equipment. In response to urgent customer requests for recycled products, it has immediately transitioned to sales. Commercial order became possible without the additional evaluation of products to be produced in continuous process facilities in the second half of 2021.

	Obtained 2 types of recycling certification for ECOTRIA products	By obtaining both the GRS (Global Recycled Standard) and ISCC Plus certifications for recycling, we are now able to selectively respond to customer demands. With the GRS certification, a clear guarantee can be provided regarding the recycled content in the product. The ISCC certification, on the other hand, allows the allocation of the recycled content used in manufacturing across multiple products, offering greater flexibility in its application.
	SK has obtained biodegradability certification for two grades of its proprietary high-flexibility PLA (Poly Lactic Acid).	Biodegradability certification has been secured for two grades of biodegradable biopolymer (flexible PLA) developed in 2020.

		Flexible PLA is a new material developed based on SK Chemicals' patented technology and has been confirmed to be superior in terms of biomass content, transparency, flexibility and physical properties. It is planned to develop and commercialize the material for use in biodegradable film packaging materials, such as high-end shopping bag packaging materials.
	Developed Recycle Grade flame retardant PET and received UL material certification	Enhanced the eco-friendliness of PET compound products by developing eco-friendly flame-retardant PET compound products. - Developed the flame retardant PET compound products applied with PCR (Post-Consumer Recycled), obtained UL material certification, and entered the customer evaluation phase.
	Successfully completed the commercialization of ECOZEN Plus	Developed a new Ecozen Plus product using alloying technology and SK Chemicals' ECOZEN heat-resistant copolyester resin and PCT resin. Ecozen Plus developed this time significantly reduced the residual stress in the molded part and improved the toughness of the material. Began selling into a market for transparent, washable containers, such as airtight containers and personal water bottles, that existing materials could not enter.
	Developed PPS Compound for automobile parts and began commercial sales	Developed PPS compound products for automotive parts using SK PPS (Ecotran) manufactured by a new solvent-free polymerization process. Passed quality evaluations in the domestic and overseas automotive parts market and began sales (for use in thermostat housings, electric water pumps, impellers, lighting parts)

<Life Science Biz.>

Classification	Assignment name	Indicant	Development phase	Note
Pharma Business	SID710	Dementia	Released in Brazil	Released Europe's first generic
	SID1806	Arthritis	Approved	Improvement of the dosage and administration of original pharmaceutical products
	SID1903	Diabetes	Release in Korea Overseas approval in progress	Incrementally modified drug
	SID2101	Migraine	Phase 1 clinical trial	Others
	SID2102	Thrombocytopenia	Phase 1 clinical trial	Generic
	SID2301	Anti-inflammatory, analgesic	Formulation research	Generic
	SID2304	Hypertension, hyperlipidemia	Formulation research	Incrementally modified drug
	SID2305	Hypertension	Formulation research	Generic
	SID2403	Migraine	Formulation research	Others
	SID2405	Arthritis	Formulation research	Incrementally modified drug
	SID2406	Gout	Formulation research	Incrementally modified drug
	SID2407	Hypertension	Formulation research	Generic
	NCE202	Non-alcoholic steatohepatitis	Non-clinical	New drug
	NCE223	Anti-cancer	Discovery	New drug
	NCE242	Idiopathic pulmonary fibrosis	Discovery	New drug
	SKP201	Arthritis	Approved	Generic
	SKP205	Migraine	Approved	Incrementally modified drug
	SKP221	Dyslipidemia	Phase 1 clinical trial	Incrementally modified drug
	SKP231	Gastric ulcer	Phase 1 clinical trial	Generic
	SKP241	Hypertension, hyperlipidemia	Approved	Incrementally modified drug
	SKP243	Gastric ulcer	Approved	Generic
SK bioscience	GBP510	COVID-19	Obtained domestic product approval (Note 1)	Jointly developed

	NBP618	Typhoid (TCV)	Obtained export product approval WHO PQ certification	Jointly developed
	GBP410	Pneumococcus (PCV)	Phase 3 clinical trial	Jointly developed

	NBP615	Cervical cancer (HPV)	Phase 1/2 clinical trial	-
	NBP613	Rotavirus	Phase 1/2 clinical trial	-
	NBP1803	Immuno-oncology	Basic research	-
	Vaccines	Acute respiratory disease (RSV)	Basic research	-
	NBP1801	Hepatitis A	Non-clinical (Note 2)	-
	NBP1802	Recombinant herpes zoster	Non-clinical	-
	NBP623	Obesity	Basic research	-
	Combo vaccine	COVID-19 + flu	Basic research	-
	GBP511	Universal COVID-19	Non-clinical	Jointly developed
	GBP540	Mini-binder (Nasal spray)	Non-clinical	Jointly developed
	GBP550	mRNA COVID-19	Non-clinical	Jointly developed
	GBP560	Japanese encephalitis	Phase 1/2 clinical trials (Note 3)	Jointly developed
	GBP570	Lassa fever	Basic research	Jointly developed
	GBP460	Cervical cancer (HPV)	Basic research	Jointly developed
	NBP607B	Differentiated flu	Non-clinical	-
	NBP625	Pandemic flu	Non-clinical	-
	NBP624	Botulinum toxin	Basic research	-
	GBP480	Ebola vaccine	Technology transfer	Joint development CDMO
	GBP410-NextGen	Pneumococcus (PCV)	Basic research	Jointly developed

※ Basic research and non-clinical stage products are not included in the detailed table.

(Note 1) Following the transition to endemic status and the WHO's recommendation for strain composition of the variant vaccine, the MHRA marketing authorization was voluntarily withdrawn after approval, and the WHO Emergency Use Listing was voluntarily rescinded after inclusion.

(Note 2) The IND for Phase 1 clinical trials was submitted in October 2024.

(Note 3) Phase 1/2 clinical trials were initiated in February 2025.

※For the detailed status, refer to 'Detailed Table-5. R&D Performance (Details) - <Life Science>'.

[SK Multi-Utility]

- Not applicable

(Performance of the completed R&Ds)

The status of newly developed drugs completed in the last 5 years is as follows:

[Life Science Biz. (Pharma division)]

(Reference date: 2024.12.31)

Classification	Product name	Indicant	Released	Status	Note
Incrementally modified drug	Subex Tab.	Migraine	2024	Sold domestically	Released (2024.09.01)
Incrementally modified drug	Toszet Tab.	Hypertension, hyperlipidemia	2024	Sold domestically	Released (2024.07.01)
Incrementally modified drug	Teglutik Suspension	Lou Gehrig's disease	2023	Sold domestically	Released (2023.01.01)
Generic	Cosca Tab. 25mg	Hypertension medication	2021	Sold domestically	Released (2021.07.01)
Generic	Toszet Tablet	Hyperlipidemia treatment	2021	Sold domestically	Released (2021.04.01)
Natural product	Ginexin-F Tab. 240mg	Improved blood circulation	2021	Sold domestically	High content tablet, improved intake convenience
Generic	Laton PR Tab.	Insomnia	2020	Sold domestically	-

New drug	Ongentys	Parkinson's disease	2020	Sold domestically	-
Incrementally modified drug	Renexin CR Tab.	Inhibited the recurrence of chronic arterial occlusion and cerebral infarction	2020	Sold domestically	Incrementally modified drug (sustained release)
Generic	Bromelain Enteric Coated Tab.	Edema after trauma or surgery	2020	Sold domestically	-

[SK bioscience]

(reference date: 2024.12.31)

Item	Indicant	Year of development completion	Current status	Note
SKYCellflu Prefilled Syringe	Flu prevention	2014	Domestic sales Overseas approval in progress/on sale	-
SKYCellflu Quadrivalent Prefilled Syringe	Flu prevention	2015	Domestic sales Overseas approval in progress/on sale	-
SKYCellflu Injection	Flu prevention	2019	Obtained domestic product approval Overseas approval in progress/on sale	WHO PQ certification
SKYCellflu Multi Injection	Flu prevention	2019	Obtained domestic product approval Overseas approval in progress/on sale	WHO PQ certification
SKYCellflu Quadrivalent Injection	Flu prevention	2019	Obtained domestic product approval Overseas approval in progress/on sale	WHO PQ certification
SKYCellflu Quadrivalent Multi Injection	Flu prevention	2019	Obtained domestic product approval Overseas approval in progress/on sale	WHO PQ certification
SKYPneumo Prefilled Syringe	Prevention of Pneumococcus	2019 (Children) 2016 (Adults)	Obtained domestic product approval Domestic approval obtained / overseas approval in progress	Cannot be sold due to patent issues
SKYZoster Inj.	Prevention of herpes zoster	2017	Domestic sales Overseas approval in progress/on sale	-
SKYVaricella Inj.	Prevention of chickenpox	2018	Domestic sales Overseas approval in progress/on sale	WHO PQ certification
SKYTyphoid Multi Inj.	Prevention of typhoid (TCV)	2022	Obtained domestic export approval Overseas approval in progress	WHO PQ certification
SKYCovione Multi Inj. (Export name: SKYCovione)	Prevention of COVID-19	2022	Obtained domestic product approval (Note 1)	-

(Note 1) Following the transition to endemic status and the WHO's recommendation for strain composition of the variant vaccine, the MHRA marketing authorization was voluntarily withdrawn after approval, and the WHO Emergency Use Listing was voluntarily rescinded after inclusion.

[SK Multi-Utility]

- Not applicable

(2) Patent application performance results

(Reference date: 2024.12.31)

(Unit: cases)

Year	Domestic		Overseas	
	Applied	Registered	Applied	Registered
2024	58	25	244	67
2023	51	43	127	93
2022	48	33	99	80

※ The performance results above include the performance of the consolidated subsidiaries.

(3) Other R&D performance

SK Bioscience, a subsidiary of the Company, is focusing on developing vaccine formulations with high potential to lead the vaccine industry in the future, based on its successful experience in developing and commercializing various vaccine products. SK bioscience aims to expand its vaccine product portfolio by securing a pipeline consisting of next-generation pneumococcal vaccines, cervical cancer vaccines, and more. The company is actively building a global vaccine network through joint development and collaboration with multinational global companies, international organizations, and biotech firms, leveraging its R&D capabilities.

SK bioscience is strengthening its global presence in the vaccine industry. Additionally, SK bioscience leveraged its accumulated experience and technology in vaccine development to proceed with the development of a COVID-19 vaccine in response to the pandemic. Currently, the company has started the development of a universal COVID-19 vaccine and other related vaccines to adapt to the transition to an endemic phase. In particular, SK bioscience's self-developed COVID-19 vaccine, 'SKYCovione,' funded by GF/CEPI, received approval for Phase 3 clinical trial plans (IND) from the Ministry of Food and Drug Safety in August 2021. The vaccine was tested in global Phase 3 clinical trials across various regions, including Europe and Southeast Asia, in addition to South Korea. With outstanding clinical trial results, it obtained domestic marketing authorization from the Ministry of Food and Drug Safety in June 2022. Additionally, the product received marketing authorization approval from the UK MHRA in May 2023 and was listed on the WHO Emergency Use Listing (EUL) in June 2023.

The results of the major R&D assignments carried out by SK Bioscience are as follows. Cell-cultured influenza vaccine, which is the foundation and core product of SK Bioscience's vaccine business, succeeded in developing the trivalent vaccine for the first time in Korea and the quadrivalent vaccine for the first time in the world. In addition, we launched our premium vaccine 'SKYZoster' into the previously monopolized herpes zoster vaccine market, followed by a successful launch of 'SKYVaricella', a chickenpox vaccine.

One of the most notable ongoing research and development projects at SK bioscience is the next-generation pneumococcal vaccine development project, being carried out in collaboration with the global vaccine leader, Sanofi. Launched in 2014, this project is currently in the global Phase 3 clinical trial stage. Upon commercialization, it is expected to enter the pneumonia vaccine market for children, which is projected to grow to approximately 13 trillion KRW globally by 2030. In addition, SK Bioscience is conducting joint research with foreign institutions with the aim of entering the global market. The typhoid vaccine, jointly developed with the International Vaccine Institute, received export product approval from the Ministry of Food and Drug Safety in May 2022 and obtained WHO PQ certification in February 2024. The company is currently undergoing international regulatory approval for global supply.

SK bioscience will continue to pursue R&D projects based on its excellent technological capabilities and actively utilize networks encompassing external organizations and the government to maximize R&D performance in the future.

*Source: Evaluate Pharma, 2023

7. Other Reference Information

A. Related to intellectual property rights

1) Patent

As of the date of preparation of the disclosure documents related to its business, the company has completed the registration of a cumulative total of 1,265 domestic patents and 1,830 international patents.

Green Chemicals Biz. In the Life Science Business sector, key pharmaceutical patents, such as those for Joins and Promac, have been obtained. Additionally, SK bioscience, a subsidiary, has acquired patents related to influenza and pneumococcal vaccines.

However, the number of intellectual property rights owned changes from time to time due to new acquisitions of rights, expiration of rights, abandonment and sale of rights, etc.

(Status of the patent acquisitions (cumulative))

(Reference date: 2024.12.31)		(Unit: cases)	
Classification	Domestic	Overseas	
Green Chemicals Biz.	1,011	1,176	
Life Science Biz.	254	654	

(Status of the patent acquisition for the last 3 years)

		(Unit: cases)		
Classification	2024	2023	2022	
Domestic	25	43	33	
Overseas	67	93	80	

2) Trademark

As of the date of preparation of the disclosure documents related to its business, the company holds a cumulative total of 201 domestic trademarks and 246 international trademarks.

B. Related laws or government regulations

1) Green Chemicals Biz.

In relation to the Company's business, it strives to protect the environment by thoroughly complying with legal matters such as various product environmental regulations and business site environmental regulations. In particular, in response to the government's carbon-neutral green growth policy, the Company reports the 'greenhouse gas emissions and energy consumption' generated from business sites required by relevant regulations to the government and transparently provides relevant information to stakeholders through sustainability reports, etc. In addition, by establishing and implementing the SHE (Safety, Health, Environment) system, the Company has enabled systematic execution of environmental management, and is doing its best to reduce harmful/hazardous factors to the environment in the future.

(1) Air and water quality

To systematically manage our emissions of air pollutants, we have installed an automated atmospheric measurement network (TMS) and conducted continuous environmental monitoring activities. Additionally, environmental protection is prioritized as a key objective, with strict adherence to emission standards and other environmental regulations

during the operation of air pollution control facilities. We manage the discharge of water pollutants by operating wastewater treatment facilities at our sites. To minimize the emission of pollutants, we have installed environmental pollution prevention facilities, including air and water pollution prevention facilities, and operate them to minimize the impact on the surrounding environment.

(2) Hazardous chemicals

In order to respond to regulations related to hazardous chemicals and enhance workplace safety, a 'chemical accident prevention management plan' has been prepared to analyze the degree of impact on people or the environment outside the workplace due to chemical accidents. In addition, an accident prevention, off-site impact assessment, and emergency response program has been prepared and implemented, and related information has been notified to residents. Based on this, measures such as establishing an in-house response plan and notifying residents around the business site have been taken to minimize damage in the event of a chemical accident.

(3) Compliance with product environmental regulations

In a situation where regulations on hazardous chemicals are being strengthened worldwide, SK chemicals produces and sells Copolyester materials SKYGREEN and ECOZEN (1-15% based on biomass-derived carbon), which do not contain Bisphenol derivatives (BPA, etc.) that may be harmful to the human body and phthalate plasticizers regulated by EU RoHS, and meet the requirements for food contact materials in Korea, the United States, Europe, China, and Japan, with improved heat resistance by introducing biomass-derived components.

(4) Greenhouse gas reduction and energy saving

Since 2015, the Company has been designated as an allocation target company for emission rights in accordance with Article 8 of the Act on the Allocation and Trading of Greenhouse Gas Emission Rights, and in accordance with Article 24 of the same Act and the guidelines of the authorities, it reports the Company's greenhouse gas emissions and energy consumption verified by a third-party external verification agency to the government authorities and discloses them to stakeholders, while carrying out activities to reduce greenhouse gases and energy in various ways.

2) Life Science Biz.

The government recognizes the pharmaceutical and biotech industries as key strategic sectors that will drive future national growth and is systematically fostering and supporting them. In accordance with relevant special laws, a five-year comprehensive plan for the promotion and support of the pharmaceutical industry was established and successfully implemented from 2013 to 2017. The government has selected outstanding companies and registered them as innovative pharmaceutical companies, offering various incentives such as expanded R&D investments, tax benefits, policy funding, tax exemptions, and regulatory relief. These efforts aim to continue investing in research and development to strengthen the sector and promote the growth of the pharmaceutical industry. Furthermore, in line with the pledge to foster the pharmaceutical and biotech industries as key drivers of health security and national wealth, the government has established the "Pharmaceutical and Biotech Innovation Committee" under the direct control of the Prime Minister. Additionally, the government has committed to increasing its R&D support for the pharmaceutical industry from 2.8 trillion KRW to 5.6 trillion KRW, doubling the amount to ensure the healthy growth of the pharmaceutical sector.

Due to its direct impact on human life, health, and public well-being, the government has implemented measures to prevent actions that threaten public health and hinder the development of the pharmaceutical industry. To maintain fair competition and order in the pharmaceutical market, the government introduced a dual penalty system for rebates, where both the recipients and providers of rebates are penalized. Additionally, the government has strengthened the penalties for providing and receiving rebates by allowing for the reduction of the reimbursement price of medicines found to have involved rebate activities. Furthermore, the government has continued to make legislative efforts to maintain fair market competition by amending the Pharmaceutical Affairs Act and related regulations. These amendments include the implementation of an economic benefit expenditure reporting system and regulations on sales agents, ensuring that the highest efforts are made to uphold fair competition in the market.

In addition, the company is regulated under the Pharmaceutical Affairs Act and related regulations, which cover approval reviews for clinical trial plans, as well as post-marketing re-evaluations, sanctions for off-label use, and maintaining order in pharmaceutical sales. Ministry of Food and Drug Safety (MFDS)

strictly reviews and thoroughly verifies the safety and efficacy of pharmaceuticals, testing methods, manufacturing-related information for active ingredients, and risk management plans. Only thoroughly verified medicines are allowed to be released into the market, ensuring proper quality maintenance of pharmaceuticals and the protection of public health. Various drug price reduction policies for the soundness of health insurance finances are also the government's efforts to stabilize the pharmaceutical industry. Unlike other industries, the pharmaceutical industry is directly regulated by the government in terms of drug pricing. As a result, government pricing policies have a direct impact on the sales and profitability of individual companies. The intensity of drug pricing policies is managed at an appropriate level based on the financial health of the health insurance system at any given time. Through these policies, drug prices are adjusted or reduced based on the price and usage of pharmaceuticals, minimizing expenditures on pharmaceutical costs, which are a major component of insurance spending, and preventing unnecessary depletion of the health insurance funds.

[SK Multi-Utility]

1) Related to intellectual property rights

- Not applicable

2) Related laws or government regulations

(1) Compliance with government regulations related to discharge of environmental substances or environmental protection
SK Multi-Utility thoroughly manages emission facilities such as air and water quality to meet legal requirements for environmental protection. In order to comply with continuously strengthening related regulations, the Company conducts environmental self-audits of business sites to proactively identify and improve risk factors.

① Air pollutant management

In order to minimize the discharge of air pollutants, a 24-hour remote monitoring system operates through monitors and detectors at major emission facilities, and compliance with emission standards is considered the top priority task for environmental protection when operating air pollutant emission facilities.

In addition, in the case of SK Multi-Utility, which has been selected as a designated business site for the greenhouse gas and energy target management system since 2015, it sets and complies with the greenhouse gas reduction target and energy saving target required by the relevant regulations, and has established a roadmap to achieve carbon neutrality by 2050 and is actively responding to climate change by improving the energy efficiency of its facilities.

② Water pollutant management

SK Multi-Utility thoroughly manages facilities to minimize the discharge of water pollutants and jointly treats wastewater at SK Chemicals' wastewater treatment facility. To manage non-point pollutants discharged from business sites due to rainfall, we have installed non-point pollution reduction facilities to prevent water pollution caused by these pollutants.

③ Waste management

Waste generated from business sites is managed according to the waste management procedure, and properly separated and discharged waste is temporarily stored in a storage area and then discharged, linked to the government's Allbaro system and then legally transported, treated, and managed. In addition, we are establishing a positive waste cycle by enhancing the recycling rate of waste generated at our facilities.

C. Status for each business division

1) Green Chemicals Biz.

(1) Characteristics of the industry, etc.

Chemical products are fundamental materials in industries such as automotive, electronics, and construction, supplying materials for household goods, industrial products, and building materials. They are also widely used as substitutes for natural resources, serving as basic raw materials with a broad range of applications, including metals, natural fibers, synthetic leather, and natural rubber. As such, the chemical industry is a key upstream sector for all industries and is exposed to various external factors, including global economic conditions, exchange rate fluctuations, and oil price volatility due to geopolitical risks in the Middle East. In particular, the domestic chemical industry has built its growth foundation through exports due to stagnation in the domestic market. However, growth momentum has weakened due to intensified competition, such as the consumption slowdown in China, and increased supply from the Middle East and the United States, which are the key export destinations.

However, our company, which primarily produces and sells high-value-added specialty products, continues to show steady growth due to the consistent global demand increase for environmentally friendly products and lightweight materials.

(2) Domestic and overseas market conditions, etc. [Highly functional copolyester resin]

The Company has secured over 50% market share in East Asia, including Korea, China, and Japan, and is conducting business in a stable manner. In North America and Europe, local marketing corporations provide customer service to expand market share, and demand is continuously increasing through the development of new markets such as Southeast Asia and Central and South America. In addition, the Company is strengthening its cooperation with cosmetic brand owners to secure stable demand for recycled Copolyester in the future. The company is also increasing the sales ratio of high-heat-resistant/eco-friendly grades such as Ecozen, as well as cosmetics-centered home appliances and household goods, in order to improve profitability.

Trends in the share of the global copolyester resin market

Product	2024	2023	2022
Copolyester	43%	42%	41%

※ Source: Estimated in-house

[DMT]

In Korea and Japan, we have secured a stable sales base through long-term contracts with our major customers, maintaining a market share of over 90%. Furthermore, as the only manufacturer in East Asia, the Company maintains a high market share throughout Asia, including China, Taiwan, and India. As the largest competitor in Germany suspended production and operations from 2023 due to rising costs, the shortage of DMT supply in the market intensified, resulting in an even higher DMT market share.

Trends in the market share of the DMT market of China, the main market

Product	2024	2023	2022
SKYDMT	90%	90%	90%

※ Source: Estimated in-house

[Copolyester adhesive]

Copolyester binders for adhesion and coating are used in food can coatings, coatings for steel plates for home appliances, clothing, packaging adhesives, etc., and the relevant industry continues to grow steadily at an average annual rate of 3%. In particular, in the case of food can coatings, due to the BPA issue, epoxy, which was widely used, is being replaced with copolyester binder, primarily in advanced countries such as the United States and Europe.

This market is growing at over 10% annually, and we are expanding our market share in the U.S. and European markets with competitive pricing and superior quality. Also, in the case of coatings for steel plates for home appliances, the Company occupies more than 80% of the domestic market and is expanding sales to Asia, including China.

Trends in the market share of the global polyester adhesive market

Product	2024	2023	2022
SKYBON (based on the solid's sales)	10%	10%	10%

※ Source: Estimated in-house

[Thermoplastic Elastomers]

Thermoplastic elastomer TPEE is an elastic material with both plastic and rubber properties. It is widely used in a variety of fields, including industrial materials (such as automobiles and cables) and consumer goods (such as films, fibers, and cosmetics). In particular, as a material with excellent heat resistance and mechanical strength, it can provide various solutions to meet customer needs with a diverse portfolio, and the market is growing at an average annual rate of 6%.

[Bio-polyol (PO3G), Bio-based elastic material raw materials]

Along with recycled materials, sustainable biomass-based materials are increasingly being spotlighted as a future industry that solves the problem of fossil resource depletion in the near future and the environmental problems that have become a reality. In particular, due to the increasing global interest in the environment, strengthening of regulations, and the declaration of ESG management, the demand for eco-friendly materials is rapidly increasing in various industries, including the global sports and fashion industry. The Company is responding to such demands by commercializing the bio-polyol PO3G business using corn as a raw material.

[Circular Recycled PET materials and raw materials (r-BHET)]

Due to the strengthening of recycling environmental regulations, the chemical recycling market is now flourishing. Furthermore, movements toward establishing a Circular Economy are becoming more concrete, with industry leaders taking the lead in this transformation. Through chemical recycling technology, the Company has achieved quality levels equivalent to those of conventional petrochemical-based materials. Building on this strength, the Company is expanding its business areas not only in packaging but also into industries such as electronics, automotive, and fashion. The Company aims to position itself as the 'Global No.1 Recycle Leader' by leading the acceleration of the market's transition to recycling and contributing to carbon reduction.

(3) Business overview, etc.

[High-functional Copolyester resins]

Copolyester is used in a wide range of applications, including various packaging materials, home appliances, and building materials, based on its safety of not using bisphenol A (BPA), an endocrine-disrupting substance, as well as its excellent physical properties, chemical resistance, and transparency. The Company is expanding the market by developing various products that meet customer needs, from high heat resistance to high strength, based on stable production technology. In the cosmetics market, sales of Claro products, which are recyclable and can include recycled materials, are growing rapidly, and in the case of high-heat-resistant products, sales volume is being expanded by the newly launched Ecozen Pro with enhanced physical performance. In addition, the demand for the Ecotria series, which includes recycled materials, is also increasing rapidly. In the future, the Company plans to continuously expand its market share through new investments and product development to solve recycling problems.

[DMT]

Despite its excellent quality, DMT has been replaced by PTA, a substitute, in fields such as polyester and hot melt in recent years due to its relatively high price and limited supply. As a result of this decrease in demand, a German DMT manufacturer suspended DMT production and sales starting in 2023. The Company uses DMT as a raw material for CHDM for Copolyester production, securing production stability and maintaining a high market share by providing the world's highest quality products.

[Copolyester adhesive]

The adhesion and coating market has a diverse range of applications and applied substrates. The core competitiveness lies in developing various products that meet customer requirements in a timely manner and building a product portfolio for each application. These capabilities create entry barriers for new market entrants. Traditionally, dominant players such as Evonik in Europe, Bostik in the United States, and Toyobo in Japan have been operating businesses exclusively within each region, but major customers, mainly paint companies, are now seeking cost-effective purchases and diversification of supply to ensure stability in raw material supply, so there are opportunities for regional expansion. The Company has competitive advantages such as technological capabilities accumulated over more than 30 years of continuing this business and price competitiveness through possessing self-produced monomers such as DMT and CHDM and is continuously expanding its market share in overseas markets. The adhesion and coating market is a mature industry with stable growth; however, changes in external factors such as regulations and technologies create demand for replacement of existing

technologies and offer opportunities for high growth applications. In particular, our products that do not contain the environmental hormone BPA are attracting attention for can coating applications, while the solvent-free hot melts that do not use organic solvents have excellent wash resistance and are used as adhesives for thermal transfer films for clothing.

[Thermoplastic Elastomers]

The thermoplastic elastomer market is a widely used material, ranging from industrial products (such as automotive and cables) to consumer goods (such as films, textiles, and cosmetics). The core competitive advantage lies in providing solutions that meet customer needs through a diverse portfolio. In addition, in a situation where environmental needs are expanding, the demand for polyester elastomer materials is increasing due to the growing demand for recycling, and substitution is taking place across industries. In this situation, the Company's product, SKYPEL, is expanding its business by meeting market needs and providing high-quality products.

[Bio-polyol (PO3G), eco-friendly elastic material raw material]

The Company's PO3G has obtained bio-based certification from the USDA (United States Department of Agriculture) and TUV in Europe, and its eco-friendliness compared to fossil raw materials has also been proven through life cycle analysis. Therefore, the elastomer industry, including polyurethane and spandex, can lower the greenhouse gas emission rate of products while realizing excellent performance by applying PO3G. Since 2022, the Company has been equipped with an annual production capacity of 5,000 tons, and even in a difficult environment, it has achieved results with partners in various industries releasing products using PO3G. In the future, the Company will further strengthen and expand cooperation with partner companies to respond to market demands and lead the resolution of environmental problems.

[Circular Recycled PET materials and raw materials (r-BHET)]

The Company is promoting the 'Circular Recycling' business based on its self-developed chemical recycling technology, and is accelerating market expansion by acquiring commercial production infrastructure for CR-PET materials and CR raw materials (r-BHET) in March 2023. Recycled PET material, created by reducing waste PET to the monomer r-BHET and then regenerating it into PET, exhibits properties and safety comparable to that of virgin PET. This allows it to be applied not only in traditional PET uses such as bottles and the fiber market but also in high-value applications such as functional films, optical films, and industrial high-strength yarns. As a result, the Company is expanding its reach to meet the eco-friendly material needs of various global brand owners. Through the Circular Recycling PET business, the Company aims to continuously achieve its mission of reducing discarded PET waste by providing recycled material solutions to the market and supporting customers' environmental protection activities, while realizing the recycling of a wide range of waste beyond bottle waste, such as films, fibers, and colored waste.

(4) New businesses, etc.

Existing petroleum-based plastic materials are expected to be converted to recycled, eco-friendly, and bio-based materials in the future due to the strengthening of eco-friendly policies by governments around the world and the increase in consumer awareness of environmental pollution. The Company has secured solely domestic technological capabilities centered on Copolyester through more than 20 years of continuous investment and research in the field of eco-friendly and bio materials, and has established unrivaled business competitiveness while showing continuous growth in the global market. By utilizing these accumulated capabilities, the Company is actively striving to produce environmentally friendly products by replacing the raw materials of Copolyester materials with recycled plastics, and is actively promoting the transition to an eco-friendly material business model, while actively pursuing the transition to a Circular Recycling Solution business. Additionally, the Company aims to achieve Net Zero by 2050 by actively expanding the use of eco-friendly fuels and the adoption of renewable energy.

① Building a circular economy business portfolio centered on green materials

In 2021, the Company commercialized Copolyester produced using the chemical recycling method for the first time in the world. Additionally, based on the commercial production of corn-based PO3G in 2022, the Company plans to expand its investment in the value chain of its business and in promising future bio-materials. Through continuous development of applications and technological advancements, the Company is expanding collaborations with various brand owners.

② Promoting the transition of the business model to a Circular Recycling Solution business

The Company aims to transition its business model to a circular recycling solution business, leveraging the recycling

capabilities built through its Copolyester business. To achieve this, the Company aims to lead the establishment of a PET circular economy, creating a positive feedback loop where the development of the ecosystem is directly linked to the success of the business. The Company will contribute to solving social problems by utilizing PET bottle waste generated in Korea and establish a stable base for business operation through smooth supply and demand of recycled raw materials.

To this end, the Company established Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd., an overseas subsidiary, to establish a business base in China, a strategic market, and to ensure operational capabilities, laying the groundwork for the early securing of r-BHET and expanding recycling-related businesses. In addition, in order to preoccupy the emerging market of the recycling business, the Company is promoting the strengthening of price competitiveness through securing HTR (Hard to Recycle) technology and waste PET, and vertically integrating the value chain leading to the production of PET materials. At the same time, efforts are being made to establish a recycling business base in the form of a 'closed loop' with global brand owners to secure a stable profit generation base and expand the business area.

③ Achieving Net Zero

The Company has established an annual reduction plan for process conversion, eco-friendly fuel conversion, mobile combustion conversion, and renewable energy introduction to achieve the Net Zero goal by 2040, and has also established an offset reduction plan for the remaining amount. Through this, the Company will achieve greenhouse gas (Scope 1, 2) Net Zero by reducing greenhouse gas emissions by 370,000 tons by 2040.

The Company aims to achieve Net Zero by 2050 for greenhouse gas emissions across the entire product life cycle, specifically targeting Scope 3 emissions. To this end, the establishment of a 'circular economy ecosystem' is essential, and in order to establish a circular economy ecosystem, the Company is communicating with various stakeholders such as partner companies, consumers, and local governments, and is actively carrying out activities such as infrastructure expansion. Furthermore, the Company will not only establish targets but also implement ongoing progress checks for continuous reductions. The targets will be managed, taking into account the changing business environment each year. In addition, the Company will secure stable renewable raw materials and expand their use by expanding the Recycle Cluster.

2) Life Science Biz.

(1) Characteristics of the industry, etc.

The pharmaceutical and biopharmaceutical industry, which produces and sells the medicines that are the key to human health, is an industry that is directly related to the health of the nation and its people. It takes on the characteristics of a regulated industry with strict management and control. In this context, corporate responsibility and ethics are of paramount importance. In particular, the vaccine industry not only takes the lead in public health through disease prevention, but also contributes to the promotion of the health of all humanity through overseas exports, thus contributing to the promotion of public interest.

The pharmaceutical and biopharmaceutical industry is a high value-added industry with high technology and research intensity. It is also attracting attention as a key industry for the future. In particular, biopharmaceuticals represent a high value-added business compared to traditional synthetic drugs, and their share of the overall pharmaceutical market is steadily increasing. On a national and social safety net level, the importance of stable vaccine supply is becoming more prominent worldwide, and recently, drug regulatory agencies in each country are recommending pharmaceutical companies to strengthen the stability of drug supply.

The size of the biopharmaceutical market is expected to grow from \$480 billion in 2023 to \$752.1 billion by 2028, representing a growth rate of 9.4%. With the government's plans to expand vaccine self-sufficiency and national vaccination support programs, not only is the domestic vaccine market expected to grow, but the international vaccine market, particularly in developing countries, is also anticipated to grow rapidly.

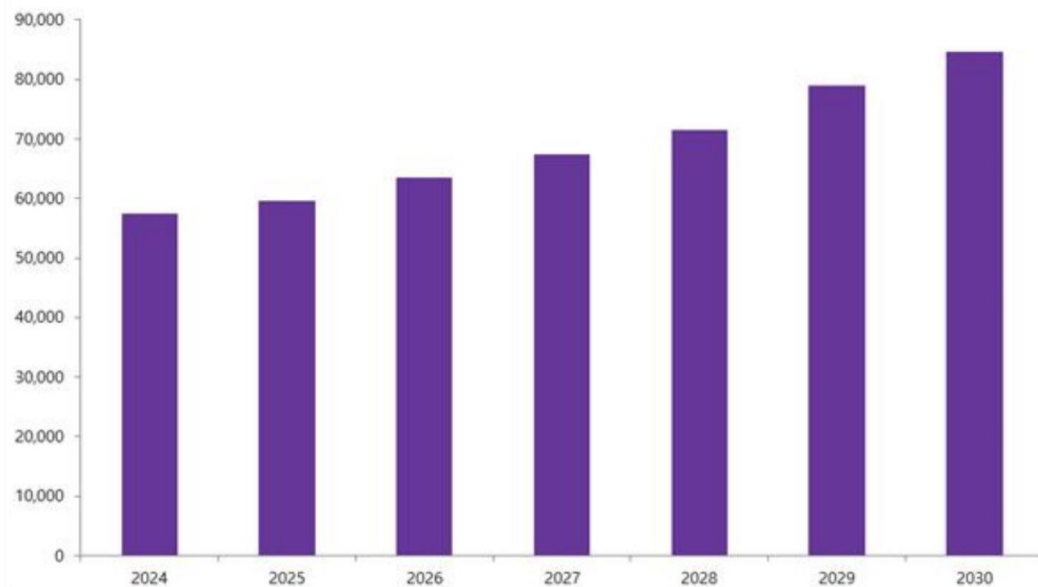
Total production of domestic pharmaceuticals, etc.

(Unit: KRW 100 million)

Year	Total production amount of pharmaceuticals, etc.	GDP		Weight Relative to GDP	
		All Industries	Manufacturing	All Industries	Manufacturing
2019	237,985	19,244,981	4,854,012	1.2%	4.9%
2020	280,284	19,407,262	4,809,174	1.4%	5.8%
2021	276,181	20,716,580	5,274,841	1.3%	5.2%
2022	308,442	21,505,758	5,511,538	1.4%	5.6%
2023	320,787	22,363,294	5,434,499	1.4%	5.9%

Source: Korea Pharmaceutical and Bio-Pharma Manufacturers Association, <2024 Pharmaceutical and biotech industry Databook>

Global vaccine market status and outlook (2024-2030, Unit: USD one million) (Unit: USD one million)



Source: Evaluate Pharma (2025.02)

(2) Domestic and overseas market conditions, etc.

[Pharmaceutical Business (Pharma Business)]

As the aging population increases, there is growing social interest in the prevention and treatment of diseases. As a result, the domestic pharmaceutical market continues to grow. However, due to government price controls, as well as the strengthening of various regulations, ethical practices, and compliance activities, competition within the domestic pharmaceutical market is expected to intensify. Pharmaceutical companies are implementing various business strategies, such as expanding product portfolios through partnerships and entering international markets, to complement these challenges. In particular, considering the complexity and high investment costs of new drug development, activities aimed at improving R&D efficiency are expected to become a key competitive advantage for the business.

Recently, there has been an increase in the adoption of the "open innovation strategy," where new drug candidates are sourced externally to enhance the efficiency and outcomes of research and development. This approach helps reduce R&D costs, shorten development timelines, and enables the creation of high-value products with a higher probability of success. In addition, due to drug price reductions and intensified competition, there is an increasing movement to improve business profitability through internal operational efficiency, and at the same time, M&A and equity investment movements for business diversification are expected to become active.

[Vaccine Business (SK Bioscience)]

① Vaccine development/commercialization

Pharmaceutical and biotech companies are focusing on high-profit new drugs and actively pursuing mergers and acquisitions (M&A) to secure a leading position in the market. In particular, M&A activity is expected to become even more active as a strategy for venture capital exit from recent biotech ventures.

Biotech ventures often possess innovative technologies and ideas but frequently lack sufficient capital. On the other hand, Big Pharma companies, equipped with strong capital and global clinical and regulatory capabilities, can enhance their own pipelines and accelerate the speed of new drug development by acquiring biotech ventures. As a result, collaboration and M&A activities in the vaccine and biopharmaceutical development sectors are expected to increase further.

② CDMO

The global biopharmaceutical market is expected to grow from \$480 billion in 2023 to \$806.3 billion by 2029, with an average annual growth rate of 9%. As a result, the biopharmaceutical CDMO market is expected to grow from \$19.7 billion in 2023, with an average annual growth rate of 14% over the next six years. (*Source: Global Biopharmaceutical CDMO Market Status and Outlook, Korea Bio Association, July 2024)

The growth of the CDMO market is being accelerated by various factors, including the expansion of outsourcing by Big Pharma, the increase in biopharmaceutical development, and the growing demand for advanced production technologies. In particular, the development of advanced biopharmaceuticals, such as cell and gene therapies (CGT), mRNA vaccines, and monoclonal antibodies, is accelerating, leading to an increased demand for CDMO companies capable of producing these products.

Additionally, as global regulatory environments tighten, GMP (Good Manufacturing Practice) certification, quality control capabilities, and the establishment of state-of-the-art production facilities have become essential requirements for CDMO companies. In particular, as regulations from the U.S. FDA and the European EMA have become stricter, global CDMO companies are making continuous investments in developing production processes that incorporate the latest technologies and improving quality standards.

[Life Science Biz. key products' domestic market share trend]

Business Division	Key Products	Market Share			Note
		2024	2023	2022	
Pharmaceutical business (Pharma Business)	Joins	27%	26%	28%	Source: UBIST
	Ginexin	40%	42%	39%	Source: UBIST
Vaccine business (SK Bioscience)	Flu vaccine (SKYCellflu)	17%	14%	- (Note 1)	Source: Estimated in-house (refer to the Ministry of Food and Drug Safety, The National Shipping Approval Data and the CDC Inoculation Rate)
	Herpes zoster vaccine (SKYZoster)	35%	44%	55%	Source: IMS data
	Chickenpox vaccine (SKYVaricella)	52%	43%	47%	Source: IMS data

(Note 1) Influenza vaccine production has been temporarily suspended for COVID-19 vaccine production in 2022 and was resumed in 2023.

(3) Overview of business

[Pharmaceutical business (Pharma Business)]

The Company's pharmaceutical business (Pharma Business Division) focuses on the manufacturing and sales of natural and synthetic pharmaceuticals. It is achieving sustained growth by generating R&D outcomes and establishing strategic partnerships with global pharmaceutical companies.

By developing and launching 'Joins', Korea's first natural substance arthritis treatment, and 'Ginexin', which has the No. 1 market share for ginkgo leaf products, the Company has solidified its position as a market leader centered on natural substance products, and is further strengthening its competitiveness through its product lineup. In addition, the Company has achieved R&D results based on excellent formulation technology, such as launching 'Mvix S', the world's first film-type erectile dysfunction treatment, and 'Trast', a patch-type arthritis treatment that maximizes the therapeutic effect and duration through the transdermal drug delivery system.

In order to further strengthen its accumulated new drug development capabilities, the Company established an open innovation organization in 2019, and is promoting joint research with leading big data researchers and artificial intelligence (AI) specialized companies in Korea, as well as new drug development specialized venture companies, to effectively discover more diverse candidates. Currently, the Company is conducting joint research based on artificial intelligence technology with global-level companies such as Standigm and OncoVix on new drugs for diseases such as cancer and non-alcoholic fatty liver disease. In the future, the Company will continue to drive new drug development for refractory diseases through open innovation with companies and research centers in various fields, and strengthen its R&D capabilities by establishing additional partnerships both domestically and internationally.

In addition, the Company has established a foundation for its contract development and manufacturing (CDMO) business through close collaboration with global pharmaceutical companies. This includes securing an additional portfolio through the supply agreement of "Sidapvia" with AstraZeneca, and plans to continue expanding its CDMO business area.

The Company plans to strengthen its business competitiveness by providing high-quality pharmaceuticals through its research and development capabilities and top-tier production infrastructure, while continuously expanding its product lineup. To achieve this, the Company will focus on securing excellent professional talent and technology, and aims to establish various forms of strategic partnerships with partner companies to secure sustainable growth drivers in the future.

[Vaccine Business (SK Bioscience)]

The Company laid the foundation for its growth as a life science company by acquiring a stake in Dong shin Pharmaceutical, a vaccine company, in March 2001. Subsequently, on November 1, 2006, SK Chemicals Co., Ltd. officially merged with Dong Shin Pharmaceutical. The merger with Dongshin Pharmaceutical is significant in that it was the starting point for taking a leap into becoming a world-class life science company through organic R&D and marketing, and it was also an expression of our ambition to become a leader in the biopharmaceutical industry by further developing the business through synergies based on the merger with Dongshin Pharmaceutical, which has unrivaled competitiveness in Korea. SK Chemicals, recognizing that the paradigm of global life sciences was shifting from "treatment" to "prevention" in 2006, made a large-scale investment of approximately 500 billion KRW in infrastructure development and R&D starting in 2008, even though the vaccine business was an unknown field in Korea at that time. In 2012, the completion of the Andong L House vaccine plant provided a key base capable of producing the majority of vaccines developed domestically.

Andong L House not only achieves flexibility in production with the single-use system, but also promotes the best quality control with a perfect aseptic system. Each process room maintains a clean working environment through verified HEPA filters, blocks cross-contamination by establishing an air-lock system and independent air conditioning systems for each area, and the drug substance produced in the drug substance area is stored in a refrigerator in the finished product area and then the final drug substance is prepared in a sealed disposable sterile bag, ensuring stable quality even in a mass production system. The loading area, which must be completely sealed off from contamination, is under special management with the restricted access barrier system (RABS). We also have a future expansion plan for future exports or pandemics.

Based on Andong L House, we have taken another step toward vaccine sovereignty by achieving remarkable results such as Korea's first trivalent cell culture influenza vaccine approval in 2014, the world's first quadrivalent cell culture influenza vaccine approval in 2015, the world's second shingles vaccine approval in 2017, and Korea's second varicella vaccine approval in 2018. Furthermore, gaining recognition for its world-class R&D capabilities, SK Chemicals partnered with the global vaccine company Sanofi in 2014 to develop a next-generation pneumococcal vaccine. Additionally, through technology transfer to CSL, the hemophilia A treatment "Apstila" was licensed out. It received market approval from the U.S. FDA and Canada in 2016, and from the European Medicines Agency (EMA) and Australia in 2017. Apstila became the first bio new drug based on domestic technology to enter both the U.S. and EU markets, and its approval is being expanded to other regions.

The next-generation pneumococcal vaccine development project, initiated in 2014 in collaboration with Sanofi, successfully completed global Phase 2 clinical trials using clinical drug products produced at the Andong L House under U.S. FDA approval in December 2018. Global Phase 3 clinical trials were initiated in 2024. Upon the successful commercialization of the vaccine, it is expected to enter the pneumococcal vaccine market for children, which is projected to grow to approximately 13 trillion KRW globally by 2030. In addition, a revised contract was signed in 2024 to further advance the development of the next-generation pneumococcal vaccine. As a result, the Company plans to continuously strengthen its position in the pneumococcal vaccine market.

In addition, SK bioscience is conducting various collaborative research with international institutions, keeping in mind its expansion into global markets. The typhoid vaccine jointly developed with IVI has obtained export product approval and WHO PQ certification. Additionally, the COVID-19 vaccine "SKYCovione," developed with funding from GF/CEPI, has

received marketing authorization both domestically (from the Ministry of Food and Drug Safety) and internationally (including from the UK MHRA). Along with this, SK Bioscience plans to actively engage in expanding the bio CDMO business and securing new platforms on the global stage by constructing a Global R&PD Center in Songdo International City and strengthening cooperation with international organizations, domestic and foreign bio companies, and research institutes.

[IDT Biologika]

IDT Biologika was founded in 1921 as the Bacteriological Institute of the Anhalt County (Bakteriologisches Institut der Anhaltischen Kreise) in Dessau, Germany. In 1925, IDT Biologika began manufacturing vaccines, starting with tuberculosis and swine erysipelas vaccines. As the demand for serum production for passive immunity in humans and animals increased, the Anhalt Serum Institute Dessau GmbH (ASID) was established in 1930.

In 1945, a vaccine research institute (Forschungsinstitut für Impfstoffe) was established in response to the production of vaccines and diagnostic agents for the eradication of infectious diseases. In the 1960s, research and production directions were established in line with government policies focused on the prevention and treatment of animal infectious diseases. In 1980, the human pharmaceutical production division was spun off, and the company name was changed to Impfstoffwerk Dessau-Tornau (Vaccine Factory Dessau-Tornau). In 1993, Hartmut Klocke privatized the company, bringing changes to its operational structure. In 1999, the company expanded its production capabilities while focusing on two core businesses: the development, production, and distribution of human vaccines and biologicals as a CDMO, and the development, production, and distribution of veterinary pharmaceuticals.

In 2019, the company sold its animal health division to Ceva Santé Animale, thereby establishing a foundation to focus on human vaccines and biologicals as a CDMO. Currently, IDT Biologika specializes in biopharmaceutical CDMO, and in 2023, it became the first German company to be officially recognized by the German government for its pandemic response capabilities.

(4) New businesses, etc.

[Pharmaceutical business (Pharma Business)]

The pharmaceutical and biotech industries are expected to experience rapid growth due to the global increase in population and the aging population. Accordingly, the Company aims to expand its business area by maintaining its current Operation Excellence and discovering pipelines and promoting business cooperation with external partners. Currently, the Company is driving open innovation through joint research collaborations with numerous biotech ventures and is strengthening its new drug discovery capabilities using AI. Additionally, the Company continues to explore further partnerships both domestically and internationally to enhance its R&D capabilities. In addition, the Company plans to pursue various medium- to long-term strategies to expand its value, including the growth of its contract development and manufacturing (CDMO) business. It will also explore all possibilities in areas closely linked to its existing businesses to identify future business opportunities.

[Vaccine Business (SK Bioscience)]

① Expansion of the preventive vaccine pipeline

A pipeline refers to a new drug development project that is being researched and developed (R&D) by a company. The Company will continue its efforts by investing in R&D and allocating resources to develop new preventive vaccine pipelines, expanding beyond its existing portfolio focused on premium domestic vaccines. In particular, the value of preventive vaccines is receiving attention through the COVID-19 pandemic, and the global vaccine market is also expected to grow significantly. The Company has already accumulated experience in global joint development projects through initiatives such as the next-generation pneumococcal vaccine, COVID-19 vaccine, and typhoid vaccine projects. Currently, the Company is working to secure a portfolio of premium vaccines, including global blockbuster candidates. In particular, the next-generation pneumococcal vaccine jointly developed with Sanofi has entered full-scale global Phase 3 clinical trials, starting with approval in Australia. It is expected to play a pivotal role in expanding SK bioscience's pipeline of preventive vaccines in the future. In addition to the vaccine currently undergoing Phase 3 clinical trials, the Company plans to sign a joint development agreement in 2024 for the development of a next-generation pneumococcal vaccine, further strengthening its position in the pneumococcal vaccine market.

② Expansion of the new bio/platform

In the vaccine and biotech industry, the meaning of a platform is that the same technology can be applied to multiple pipelines, and the mRNA platform that emerged during the COVID-19 pandemic is a representative example. The core characteristic of SK Bioscience's R&D and production capabilities is that it can simultaneously possess multiple platforms

and flexibly and quickly convert them as needed. SK Bioscience has already demonstrated its capabilities in various platforms, including synthetic antigens (SKYCovione and Novavax COVID-19 vaccines), cell culture (SKYCellflu), and viral vectors (AstraZeneca COVID-19 vaccine). Currently, the Company is progressing with a project to secure mRNA technology and production platforms through collaboration with global initiatives. In 2025, the Company began global Phase 1/2 clinical trials for the Japanese encephalitis vaccine (GBP560), which has been continuously developed in partnership with the international organization CEPI. Through this, the Company aims to secure mRNA vaccine platform technology capable of addressing various diseases, beyond just pandemic response, and will build new pipelines to strengthen its global competitiveness. In addition, the Company will continue to strive for the acquisition of new innovation platforms through ongoing networking and collaboration within the bio ecosystem.

In addition, platform technologies can be used to secure synergy not only in vaccines but also in the field of bio therapeutics. For example, SK bioscience's viral vector production capabilities can be utilized to expand into the bio field, including CGT, and the Company is pursuing new businesses such as M&A and partnerships that can maximize synergy with its existing capabilities.

③ Promotion of the CDMO/CMO business

SK bioscience's CDMO business plays a key role in the commercialization of vaccines by transferring antigen manufacturing technologies from companies with proprietary vaccine technology. The Company either supplies commercial quantities of products or provides development services from the process development stage, making significant contributions to the commercialization of vaccines.

After COVID-19, many companies are promoting the development and manufacturing of vaccines, but the number of companies with the capability to commercialize vaccines, which requires accumulated know-how, is limited. Recently, many global pharmaceutical and biotech companies have increasingly outsourced process development and mass production, with product supply based on manufacturing partnerships. There has also been a growing trend of active partnerships between CDMO companies and biotech ventures, particularly those lacking in-house development and production capabilities. SK Bioscience has demonstrated a high level of process development and production capabilities, including securing EU-GMP, through the successful launch/supply of its own product portfolio and partnerships with global partners for COVID-19 vaccines.

Additionally, SK bioscience signed an acquisition agreement for IDT Biologika, located in Germany, in June 2024. IDT Biologika, founded in 1921, is a large-scale bio company with over 100 years of accumulated expertise and capabilities, operating in both Germany and the United States. IDT Biologika holds a track record recognized by over 13 key pharmaceutical regulatory agencies, including those in the United States and Europe. The company produces bulk and finished vaccines/biologics across the entire range, from clinical to commercial stages, alongside process/analytical development. Additionally, IDT Biologika has established a solid business foundation as a key manufacturing partner for global pharmaceutical

and bio companies. Based on strong trust with the German government, IDT Biologika is preparing for the next pandemic together, and has secured a contract for an annual stockpile of 80 million doses over the next five years.

④ Promotion of SKYShield business

In the wake of the COVID-19 pandemic, many governments have pursued the localization of vaccine-related capabilities, including production, to enhance their self-sufficiency. Accordingly, SK Bioscience is striving to localize vaccine development and production infrastructure in countries around the world through partnerships with foreign governments and local companies. SK bioscience aims to support the localization of vaccine capabilities in countries worldwide through its expertise in vaccine-related products, technologies, and facilities, along with institutional support from foreign governments, technology transfer from local companies, and operational synergies. Accordingly, in August 2023, SK Bioscience signed a contract with GPO, a Thai state-owned pharmaceutical company, to transfer the finished product technology of cell culture influenza vaccine. In this way, the Company is designing and promoting business models specialized for regional characteristics, focusing on key countries in each region of the world.

[SK Multi-Utility]

SK Multi-Utility operates a power and steam supply business based in Ulsan, producing and stably selling steam and electricity using raw materials such as bituminous coal to customers within the supply area. In addition, we plan to further develop the business by investing in LNG cogeneration facilities in Ulsan and promoting specialization in the power and steam utility supply business.

E. The summarized financial status by business division

(based on consolidated financial statements) for the disclosed period is as follows:

(Unit: KRW one thousand)

Division	Classification	The 8th Period		The 7th Period		The 6th Period	
		Amount	Percentage	Amount	Percentage	Amount	Percentage
Green Chemicals Biz.	Sales revenue	1,473,610,421	84.8%	1,285,198,836	73.5%	1,401,946,579	77.0%
	Operating profit (Note 1)	87,094,981	-	52,005,352	62.4%	88,746,511	39.0%
	Depreciation (Note 2)	73,864,274	54.5%	67,238,189	59.6%	51,871,909	57.0%
	Total assets	2,138,614,528	39.8%	1,839,934,959	44.2%	1,471,789,456	37.0%
Life Science Biz.	Sales revenue	624,775,140	36.0%	745,554,322	42.6%	770,659,186	42.0%
	Operating profit (Note 1)	(119,278,528)	-	19,531,325	23.4%	148,611,013	64.0%
	Depreciation (Note 2)	56,352,419	41.6%	41,341,599	36.6%	34,400,077	38.0%
	Total assets	3,097,998,596	57.7%	2,092,798,709	50.3%	2,335,193,550	59.0%
Consolidation adjustments, etc.	Sales revenue	(361,606,659)	-20.8%	(281,975,418)	-16.1%	(343,414,442)	-19.0%
	Operating profit (Note 1)	(12,992,021)	-	11,765,810	14.1%	(6,876,851)	-3.0%
	Depreciation (Note 2)	5,328,693	3.9%	4,305,587	3.8%	5,193,111	6.0%
	Total assets	130,435,503	2.4%	226,041,236	5.4%	138,699,874	4.0%

(Note 1) Due to operating losses, the proportion of operating profit is not disclosed.

(Note 2) This is the total of depreciation expenses for tangible assets, investment property depreciation, right-of-use asset depreciation, and amortization of intangible assets.

※ For detailed information on financial information, please refer to "27. Operating Segments" in "3. Notes to the Consolidated Financial Statements" under "III. Matters Concerning Finance."

III. Financial Information

1. Summary of Financial Information

A. Summarized consolidated financial information

(Unit: KRW one million)

Account	The 8th Period	The 7th Period	The 6th Period
[Current assets]	2,385,758	2,204,427	2,518,694
- Quick assets	1,820,272	1,827,509	2,035,941
- Inventories	565,486	376,918	482,753
[Non-current assets]	2,981,290	1,954,348	1,426,989
- Affiliates and joint ventures investments	9,427	10,418	13,309
- Tangible assets	2,459,231	1,601,634	1,193,131
- Intangible assets	162,978	54,204	51,777
- Other non-current assets	349,654	288,093	168,772
Total Assets	5,367,048	4,158,775	3,945,683
[Current liabilities]	983,246	830,211	1,058,819
[Non-current liabilities]	1,350,836	652,790	177,958
Total liabilities	2,334,082	1,483,001	1,236,777
[Shares owned by the controlling company]	2,200,693	2,118,704	2,146,699
- Capital stock	98,794	98,794	98,794
- Consolidated capital surplus	1,240,117	1,212,422	1,199,035
- Other items of consolidated capital	(21,645)	(21,645)	(21,645)
- Accumulated other comprehensive income on a consolidated basis	22,397	(37,378)	1,918
- Consolidated retained earnings	861,030	866,511	868,597
[Non-controlling interest]	832,273	557,070	562,207
Total equity	3,032,966	2,675,774	2,708,906
Total liabilities and stockholders' equity	5,367,048	4,158,775	3,945,683
Number of companies included in the consolidation (Unit: number of companies)	14	11	10
	January 1, 2024 - December 31	January 1, 2023 - December 31	January 1, 2022 - December 31
Sales revenue	1,736,779	1,748,778	1,829,191
Operating profit (loss)	(45,176)	83,302	230,481
Net income (loss) before income tax expenses	(27,441)	52,419	236,701
Net income (loss) for the year	(4,365)	47,838	231,476
Equity attributable to the owners of the controlling company	8,838	39,864	191,266
Non-controlling interest	(13,203)	7,974	40,210
Earnings per share (EPS) for the equity attributable to the owners of the controlling company			
Basic EPS (Unit: KRW)	376	2,072	9,910
Diluted EPS for common stocks (Unit: KRW)	375	2,071	9,960
Basic EPS for preferred stock (Unit: KRW)	1,200	2,122	9,870

※ The above financial statements have been prepared in accordance with the Korean International Financial Reporting Standards (K-IFRS). Regarding the Notes to the Consolidated Financial Statements, refer to “III. Matters Concerning Finance - 3. Notes to the Consolidated Financial Statements.”

B. Summarized financial information

(Unit: KRW one million)

Account	The 8th Period	The 7th Period	The 6th Period
[Current assets]	687,110	673,098	645,373
- Quick assets	411,558	441,010	401,088
- Inventories	275,552	232,088	244,285
[Non-current assets]	1,295,195	1,282,620	1,165,105
-Investments in subsidiaries, associates, and joint ventures.	441,377	444,402	383,920
- Tangible assets	696,521	693,309	661,774
- Intangible assets	37,335	30,267	32,020
- Other non-current assets	119,962	114,642	87,391
Total Assets	1,982,305	1,955,718	1,810,477
[Current liabilities]	570,289	652,685	535,148
[Non-current liabilities]	234,634	179,147	155,731
Total liabilities	804,923	831,831	690,879
[Capital]	98,794	98,794	98,794
[Capital surplus]	157,915	157,915	157,915
[Other capital]	(12,644)	(12,644)	(12,644)
[Retained earnings]	933,318	879,822	875,533
Total equity	1,177,382	1,123,887	1,119,598
Total liabilities and stockholders' equity	1,982,305	1,955,718	1,810,477
Valuation method for the investment stocks for subsidiaries, affiliates, and joint ventures	Cost method	Cost method	Cost method
	January 1, 2024 - December 31	January 1, 2023 - December 31	January 1, 2022 - December 31
Sales revenue	1,340,527	1,232,926	1,256,030
Operating income	111,092	85,435	107,527
Net income before income tax expense	88,582	56,020	88,401
Net income	70,167	41,754	69,270
Earnings per share			
Basic EPS (Unit: KRW)	3,651	2,171	3,586
Diluted EPS for common stocks (Unit: KRW)	3,650	2,169	3,575
Basic EPS for preferred stock (Unit: KRW)	3,701	2,221	3,636

※ The above financial statements have been prepared in accordance with the Korean International Financial Reporting Standards (K-IFRS). Regarding the Notes to the Financial Statements, refer to “III. Matters Concerning Finance - 5. Notes to the Financial Statements.”

2. Consolidated Financial Statements

2-1. Consolidated Statement of Financial Position

Consolidated Statement of Financial Position

The 8th Period as of December 31, 2024

The 7th Period as of December 31, 2023

The 6th Period as of December 31, 2022

(Unit: KRW)

	The 8th Period	The 7th Period	The 6th Period
Assets			
Current assets	2,385,758,405,311	2,204,426,649,041	2,518,693,783,957
Cash and cash equivalents	542,302,081,443	396,012,209,626	400,028,232,546
Short-term financial instruments	851,575,311,605	1,204,421,873,960	1,319,742,323,271
Trade and other receivables	368,470,892,241	179,998,131,845	260,401,304,200
Current derivative financial assets	194,812	435,251,380	0
Current inventories	565,486,461,375	376,917,955,373	482,753,081,114
Other current assets	57,923,463,835	32,458,494,701	28,995,934,504
Non-current assets or disposal groups classified as held for sale or distribution to owners	0	14,182,732,156	26,772,908,322
Non-current assets	2,981,290,222,028	1,954,348,254,650	1,426,989,095,787
Long-term financial products	27,500,000	27,500,000	27,500,000
Trade receivables and other non-current receivables	957,289,950	788,675,850	863,517,000
Non-current derivative assets	8,784,996,485	5,055,776,136	0
Long-term investment assets	85,835,268,995	102,766,368,200	38,628,272,096
Equity-method applied investment shares	9,426,898,412	10,417,815,909	13,309,152,533
Tangible assets	2,459,231,339,268	1,601,633,779,540	1,193,131,058,845
Right-of-use assets	45,302,222,646	35,317,622,145	28,609,183,615
Intangible assets and goodwill	162,978,292,827	54,204,144,488	51,777,238,900
Investment real estate properties	23,927,292,713	17,297,334,222	17,339,365,662
Other non-current assets	17,163,950,507	14,374,474,986	13,365,843,649
Non-current net defined benefit assets	44,451,345,193	43,708,904,343	41,946,809,273
Deferred income tax assets	123,203,825,032	68,755,858,831	27,991,154,214
Total Assets	5,367,048,627,339	4,158,774,903,691	3,945,682,879,744
Liabilities			
Current liabilities	983,245,942,540	830,211,385,119	1,058,819,027,627
Accounts payable and other current liabilities	307,560,156,177	246,663,913,007	219,159,227,892
Current borrowings (including bonds)	303,095,328,440	263,707,890,270	436,109,819,164
The portion of non-current borrowings (including bonds) that is replaced by liquidity	127,397,424,028	192,405,128,296	103,986,943,744
Current derivative liabilities	5,620,854,258	110,856,220	0
Current lease liabilities	7,804,298,149	7,677,174,616	11,685,097,812
Current contract liabilities	129,980,833,706	57,125,281,869	159,925,939,743
Current provisions for liabilities	40,798,567,027	12,476,761,297	22,137,940,676
Current income tax liabilities	23,076,490,764	9,535,108,378	36,222,667,153
Other current liabilities	37,911,989,991	40,492,185,159	62,031,064,860
Liabilities included in disposal groups classified as held for sale	0	17,086,007	7,560,326,583
Non-current liabilities	1,350,836,454,333	652,789,462,725	177,958,022,961
The non-current portion of non-current bonds	219,404,968,938	164,557,090,565	154,787,348,542
The non-current portion of non-current borrowings from financial institutions (excluding bonds) that is replaced by liquidity	983,815,254,545	472,518,336,723	7,172,698,962
Non-current lease liabilities	16,684,702,988	9,022,893,722	13,185,242,385
Non-current contract liabilities	51,026,373,643	0	0

Non-current portion of provisioning liabilities	6,699,668,553	5,957,148,495	2,278,409,185
Other non-current liabilities	1,245,650,141	733,993,220	534,323,887
Deferred income tax liabilities	71,959,835,525	0	0
Total liabilities	2,334,082,396,873	1,483,000,847,844	1,236,777,050,588
Equity			
Equity attributable to owners of the parent	2,200,693,238,164	2,118,704,262,794	2,146,698,895,591
Capital	98,793,505,000	98,793,505,000	98,793,505,000
Capital surplus	1,240,117,260,617	1,212,422,483,801	1,199,035,135,551
Components of other equity	(21,644,726,463)	(21,644,726,463)	(21,644,726,463)
Accumulated other comprehensive income	22,397,326,497	(37,377,777,727)	1,917,975,389
Retained earnings (losses)	861,029,872,513	866,510,778,183	868,597,006,114
Non-controlling interest	832,272,992,302	557,069,793,053	562,206,933,565
Total equity	3,032,966,230,466	2,675,774,055,847	2,708,905,829,156
Total liabilities and stockholders' equity	5,367,048,627,339	4,158,774,903,691	3,945,682,879,744

2-2. Consolidated Statement of Comprehensive Income

Consolidated Statement of Comprehensive Income

The 8th Period From 2024.01.01 to 2024.12.31

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

(Unit: KRW)

	The 8th Period	The 7th Period	The 6th Period
Revenue (Sales)	1,736,778,902,011	1,748,777,740,387	1,829,191,322,924
Cost of sales	1,340,793,917,333	1,275,845,805,799	1,214,096,459,201
Gross profit	395,984,984,678	472,931,934,588	615,094,863,723
Selling and administrative expenses	441,160,553,012	389,629,447,509	384,614,190,356
Operating profit (loss)	(45,175,568,334)	83,302,487,079	230,480,673,367
Non-operating income	17,734,495,798	(30,883,785,417)	6,220,044,194
Other revenue	42,810,607,547	12,047,850,869	9,572,233,627
Other losses	30,308,598,946	43,875,212,671	24,926,448,399
Financial income	97,754,824,373	129,105,823,303	174,295,170,527
Financial cost	91,735,491,605	125,296,928,168	151,958,375,452
Loss on equity method valuation	(786,845,571)	(2,865,318,750)	(762,536,109)
Net income (loss) before income tax expenses	(27,441,072,536)	52,418,701,662	236,700,717,561
Corporate tax expense (income)	(23,076,338,592)	4,580,807,884	5,224,847,889
Net income (loss)	(4,364,733,944)	47,837,893,778	231,475,869,672
Other comprehensive income	90,550,440,474	(72,059,006,535)	14,124,172,585
Items that may be reclassified to profit or loss (after-tax other comprehensive income)	29,991,341,013	(2,254,817,283)	(929,574,283)
Share of other comprehensive income of associates and joint ventures accounted for using the equity method (after-tax other comprehensive income)	14,269,967	(26,017,874)	(4,017,338)
Exchange differences on translation of foreign operations (other comprehensive income after income taxes)	29,977,071,046	(1,963,331,483)	(1,460,722,533)
Cash flow hedging gains and losses (after-tax other comprehensive income)	0	(265,467,926)	535,165,588
Items that are not reclassified to profit or loss (after-tax other comprehensive income)	60,559,099,461	(69,804,189,252)	15,053,746,868
After-tax other comprehensive income on investments in equity instruments	61,379,514,565	(54,727,476,830)	0
Remeasurement gains and losses of the defined benefit plan (After-tax other comprehensive income)	(820,415,104)	(15,076,712,422)	15,053,746,868
Total comprehensive income	86,185,706,530	(24,221,112,757)	245,600,042,257
Reversion of net income (loss)			
Net income (loss) attributable to the owners of the parent company	8,838,745,406	39,863,821,610	191,266,054,717
Net income (loss) attributable to non-controlling interests	(13,203,479,350)	7,974,072,168	40,209,814,955

Attribution of comprehensive income			
Total comprehensive income attributable to the owners of the parent company	66,594,341,017	(12,726,527,326)	203,496,793,939
Comprehensive income, non-controlling interests	19,591,365,513	(11,494,585,431)	42,103,248,318
Earnings per share (EPS)			
Earnings (Loss) per common stock (Unit: KRW/share) (Unit: KRW)	376	2,072	9,910
Diluted earnings (loss) per share (Unit: KRW/share) (Unit: KRW)	375	2,071	9,960
Basic EPS for preferred stock (loss) (Unit: KRW)	1,200	2,122	9,870

2-3. Consolidated Statement of Changes in Equity

Consolidated Statement of Changes in Equity

The 8th Period From 2024.01.01 to 2024.12.31

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

(Unit: KRW)

	Equity								
	Equity attributable to owners of the parent						Non-controlling interest		Total equity
	Capital	Capital surplus	Components of other equity	Accumulated other comprehensive income	Retained earnings	Equity attributable to the owners of the controlling company			
2022.01.01 (capital at beginning of period)	98,681,045,000	1,192,768,791,273	(21,346,012,463)	2,937,290,315	780,500,698,398	2,053,541,812,523	513,195,595,995	2,566,737,408,518	
Net income (loss)	0	0	0	0	191,266,054,717	191,266,054,717	40,209,814,955	231,475,869,672	
Share of other comprehensive income of associates and joint ventures accounted for using the equity method, after tax	0	0	0	(4,017,338)	0	(4,017,338)	0	(4,017,338)	
Foreign exchange differences on the translation of foreign operations (After-tax other comprehensive income)	0	0	0	(1,400,684,377)	0	(1,400,684,377)	(60,038,156)	(1,460,722,533)	
Cash flow hedge gains and losses (After-tax other comprehensive income)	0	0	0	385,472,161	0	385,472,161	149,693,427	535,165,588	
After-tax other comprehensive income, investments in equity instruments	0	0	0	0	0	0	0	0	
After-tax other comprehensive income, Remeasurement gains and losses of defined benefit plans	0	0	0	0	13,249,968,778	13,249,968,778	1,803,778,091	15,053,746,868	
Changes in the scope of consolidation	0	0	0	0	0	0	0	0	
Increase (decrease) due to share-based payment transactions, equity	112,460,000	1,940,945,008	(298,714,000)	0	0	1,754,691,008	0	1,754,691,008	
Retirement of treasury stock	0	0	0	0	(49,982,601,979)	(49,982,601,979)	0	(49,982,601,979)	
Dividends recognized as distributions o owners	0	0	0	0	(66,437,113,800)	(66,437,113,800)	(800,000,000)	(67,237,113,800)	
Changes in non-controlling stockholders' interest	0	4,325,399,270	0	(85,372)	0	4,325,313,898	7,708,089,253	12,033,403,151	
2022.12.31 (capital at end of period)	98,793,505,000	1,199,035,135,551	(21,644,726,463)	1,917,975,389	868,597,006,114	2,146,698,895,591	562,206,933,565	2,708,905,829,156	
2023.01.01 (capital at beginning of period)	98,793,505,000	1,199,035,135,551	(21,644,726,463)	1,917,975,389	868,597,006,114	2,146,698,895,591	562,206,933,565	2,708,905,829,156	
Net income (loss)	0	0	0	0	39,863,821,610	39,863,821,610	7,974,072,168	47,837,893,778	

Share of other comprehensive income of associates and joint ventures accounted for using the equity method, after tax	0	0	0	(26,017,874)	0	(26,017,874)	0	(26,017,874)
Foreign exchange differences on the translation of foreign operations (After-tax other comprehensive income)	0	0	0	(2,004,765,458)	0	(2,004,765,458)	41,433,975	(1,963,331,483)
Cash flow hedge gains and losses (After-tax other comprehensive income)	0	0	0	(180,991,321)	0	(180,991,321)	(84,476,605)	(265,467,926)
After-tax other comprehensive income, investments in equity instruments	0	0	0	(37,312,222,542)	0	(37,312,222,542)	(17,415,254,288)	(54,727,476,830)
Remeasurement gains and losses of the defined benefit plan (After-tax other comprehensive income) Gains and losses	0	0	0	0	(13,066,351,741)	(13,066,351,741)	(2,010,360,681)	(15,076,712,422)
Changes in the scope of consolidation	0	0	0	0	0	0	0	0
Increase (decrease) due to share-based payment transactions, equity	0	0	0	0	0	0	0	0
Retirement of treasury stock	0	0	0	0	0	0	0	0
Dividends recognized as distributions to owners	0	0	0	0	(28,883,697,800)	(28,883,697,800)	(1,000,000,000)	(29,883,697,800)
Changes in non-controlling stockholders' interest	0	13,387,348,250	0	228,244,079	0	13,615,592,329	7,357,444,919	20,973,037,248
2023.12.31 (capital at end of period)	98,793,505,000	1,212,422,483,801	(21,644,726,463)	(37,377,777,727)	866,510,778,183	2,118,704,262,794	557,069,793,053	2,675,774,055,847
2024.01.01 (capital at beginning of period)	98,793,505,000	1,212,422,483,801	(21,644,726,463)	(37,377,777,727)	866,510,778,183	2,118,704,262,794	557,069,793,053	2,675,774,055,847
Net income (loss)	0	0	0	0	8,838,745,406	8,838,745,406	(13,203,479,350)	(4,364,733,944)
Share of other comprehensive income of associates and joint ventures accounted for using the equity method, after tax	0	0	0	14,269,967	0	14,269,967	0	14,269,967
Foreign exchange differences on the translation of foreign operations (After-tax other comprehensive income)	0	0	0	18,111,409,298	0	18,111,409,298	11,865,661,748	29,977,071,046
Cash flow hedge gains and losses (After-tax other comprehensive income)	0	0	0	0	0	0	0	0
After-tax other comprehensive income, investments in equity instruments	0	0	0	41,649,424,959	0	41,649,424,959	19,730,089,606	61,379,514,565
Remeasurement gains and losses of the defined benefit plan (After-tax other comprehensive income) Gains and losses	0	0	0	0	(2,019,508,613)	(2,019,508,613)	1,199,093,509	(820,415,104)
Changes in the scope of consolidation	0	0	0	0	271,866,637	271,866,637	212,693,676,338	212,965,542,975
Increase (decrease) due to share-based payment transactions, equity	0	0	0	0	0	0	0	0
Retirement of treasury stock	0	0	0	0	0	0	0	0
Dividends recognized as distributions to owners	0	0	0	0	(12,572,009,100)	(12,572,009,100)	(5,067,300,000)	(17,639,309,100)
Changes in non-controlling stockholders' interest	0	27,694,776,816	0	0	0	27,694,776,816	47,985,457,398	75,680,234,214
2024.12.31 (capital at end of period)	98,793,505,000	1,240,117,260,617	(21,644,726,463)	22,397,326,497	861,029,872,513	2,200,693,238,164	832,272,992,302	3,032,966,230,466

2-4. Consolidated Statement of Cash Flows

Consolidated Statement of Cash Flows

The 8th Period From 2024.01.01 to 2024.12.31

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

(Unit: KRW)

	The 8th Period	The 7th Period	The 6th Period
Cash flows from operating activities	(89,345,889,786)	146,064,486,206	(186,535,765,437)
Net income (loss)	(4,364,733,944)	47,837,893,778	231,475,869,672
Adjustments for net income reconciliation	23,382,305,877	184,647,287,718	135,908,098,051
Changes in assets and liabilities due to operating activities	(70,350,630,431)	(21,843,441,674)	(359,736,960,553)
Interest received	19,371,764,833	14,824,578,916	6,663,546,566
Interest paid	(39,700,857,918)	(29,596,192,928)	(17,593,235,894)
Dividends received	1,190,000,000	1,190,000,000	2,190,000,000
Corporate tax paid, operating activities	(18,873,738,203)	(50,995,639,604)	(185,443,083,279)
Cash flows from investment activities	(157,328,638,609)	(510,390,209,660)	230,967,888,504
Disposal of short-term financial instruments	377,514,177,572	128,727,989,334	492,087,506,548
Decrease in lease deposits	3,146,004,000	62,228,916	99,965,063
Decrease in loans receivable	791,357,527	2,620,280,635	464,303,253
Decrease in long-term investment assets	105,856,946,838	410,558,210	0
Disposal of other non-current financial assets	0	0	45,985,232,055
Disposal of tangible assets	17,534,187,937	23,310,100	1,340,016,719
Disposal of intangible assets	1,060,000,000	920,000	1,264,591,806
Government subsidies received	0	0	3,179,262
Disposal of investment assets in affiliated companies	0	0	288,722,533
Disposal of non-current assets or disposal groups classified as held for sale	20,774,468,068	0	0
Increase in lease deposits	(577,443,000)	(2,607,509,620)	(3,474,734,190)
Increase in loans receivable	(321,491,000)	(50,000,000)	(964,297,663)
Acquisition of financial instruments	0	0	(1,000,086,966)
Acquisition of long-term investment assets	(11,119,057,933)	(114,476,343,960)	(2,398,239,735)
Acquisition of tangible assets	(422,095,376,066)	(389,143,148,786)	(290,147,419,273)
Acquisition of right-of-use assets	0	(19,644,515)	0
Acquisition of intangible assets	(18,178,811,902)	(10,738,887,107)	(12,580,850,908)
Cash outflows due to consolidation equity transactions	(14,956,076,242)	0	0
Cash flows from acquiring control of subsidiaries and other businesses	(216,757,524,408)	(125,199,962,867)	0
Cash flows from financing activities	379,974,961,023	355,537,871,001	107,152,679,535
Increase in short-term borrowings	187,365,410,342	126,949,750,545	455,664,270,251
Increase in long-term borrowings	358,405,605,511	469,715,903,160	7,573,158,841
Increase in bonds payable	149,347,606,800	199,140,850,000	0
Cash inflows from the exercise of stock options	0	0	1,744,874,808
Settlement of derivative transactions	0	5,484,000,000	0
Cash inflow from consolidated capital transactions	75,680,234,213	397,598,916	2,617,945,592
Repayment of short-term borrowings	(172,429,866,241)	(299,248,274,971)	(27,845,557,184)
Repayment of bonds payable	(190,000,000,000)	(105,129,000,000)	(160,000,000,000)

Payments of lease liabilities	(10,755,542,302)	(11,891,145,119)	(7,387,337,795)
Repayment of long-term borrowings	0	0	(48,000,000,000)
Cash outflows due to the acquisition of treasury shares	0	0	(49,982,601,978)
Payment of dividends	(17,638,487,300)	(29,881,811,530)	(67,232,073,000)
Net increase (decrease) in cash and cash equivalents before the effect of exchange rate fluctuations	133,300,432,628	(8,787,852,453)	151,584,802,602
Cash and cash equivalents classified as held for sale at the beginning	8,242,207,700	7,089,709,249	0
Cash and cash equivalents	396,012,209,626	400,028,232,546	255,615,367,155
Effect of exchange rate fluctuations on cash and cash equivalents	4,747,231,489	5,924,327,983	(82,227,962)
Cash and cash equivalents classified as held for sale	0	(8,242,207,699)	(7,089,709,249)
Cash and cash equivalents at end of period	542,302,081,443	396,012,209,626	400,028,232,546

3. Notes to the Consolidated Financial Statements

1 General Information

1-1 Overview of the controlling company

For the purpose of manufacturing and selling synthetic resins and related products, as well as development, production and sales of pharmaceuticals and vaccines, SK chemicals Co., Ltd. (hereinafter, "controlling company") was established on December 1, 2017 via a split-off from SK discovery Co., Ltd. (formerly, SK Chemicals Co., Ltd.).

The controlling company re-listed its stock certificates on the Korea Exchange on January 5, 2018, and operates its Ulsan and Cheongju Plants with its head office located in Seongnam-si, Gyeonggi-do.

On May 1, 2018, the controlling company merged with SK Petrochemical Co., Ltd., a subsidiary in which it holds 100% of the stake, and on July 1, 2018, the date of split-off, established SK Bioscience Co., Ltd. for the development and production of vaccines through a physical

split-off. Furthermore, the controlling company established SK Multi-Utility Co., Ltd., for the purposes of supplying utilities through a physical split-off on December 1, 2021, the date of split-off.

As of the end of the reporting period, the status of major shareholders (including preferred stocks) of the controlling company is as follows.

Name of shareholder	Common stocks		Preferred stocks	
	Number of shares held (stocks)	Equity interest (%)	Number of shares held (stocks)	Equity interest (%)
SK Discovery Co., Ltd.	7,056,899	40.90	-	-
SK Chemicals Co., Ltd. (Treasury shares)	30,857	0.18	148,133	7.00
Others	10,166,027	58.92	1,967,296	93.00
Total	17,253,783	100.00	2,115,429	100.00

The consolidated financial statements of the Group were approved by the Board of Directors on February 7, 2025, and are expected to be formally approved at the General Shareholders' Meeting on March 26, 2025.

1-2 Status of subsidiaries

(1) As of the end of the current period, the details of subsidiaries are as follows.

Name of subsidiaries	Location	Month of settlement	Equity interest (%)	Major operating activities
SK Environmental Materials (Yantai) Co., Ltd.	China	December	100.00	Resin manufacturing
SK Environmental Protection Materials (Yantai) Co., Ltd.	China	December	100.00	Management consulting
Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd. (Note 1)	China	December	100.00	Plastic manufacturing business
SK bioscience Co., Ltd.	Republic of Korea	December	66.45	Pharmaceutical manufacturing
SK bioscience USA, Inc. (Note 2)	United States of America	December	100.00	Biotechnology development
SK bioscience Germany GmbH (Note 2, 3)	Germany	December	100.00	Holding Company
IDT Biologika GmbH (Note 2, 4)	Germany	December	60.65	Pharmaceutical manufacturing
IDT Biologika Corporation (Note 2, 5)	United States of America	December	60.65	Pharmaceutical manufacturing
Technik-Energie-Wasser Servicegesellschaft mbH (Note 2, 4)	Germany	December	60.00	Other Services
SK Multi-Utility Co., Ltd.	Republic of Korea	December	100.00	Manufacturing
SK Chemicals Daejeong Co., Ltd. (Note 6)	Republic of Korea	December	50.00	Organic solvent manufacturing
SK Chemicals America	United States of America	December	100.00	Wholesale
SK Chemicals GmbH	Germany	December	100.00	Wholesale
SK Chemicals Malaysia	Malaysia	December	100.00	Management consulting

(Note 1) During the current period, Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd. was newly invested in by the Parent Company and incorporated as a subsidiary.

(Note 2) The ownership percentage is shown based on SK bioscience's ownership stake.

(Note 3) It was included as a subsidiary due to a new investment during the period.

(Note 4) It was included as a subsidiary due to an acquisition during the period and is a subsidiary of SK bioscience Germany GmbH.

(Note 5) It is a subsidiary of IDT Biologika GmbH

(Note 6) The parent company sold 50% of its shares in the subsidiary, SK Chemicals Daejeong Co., Ltd., to Daejeong Chemicals & Metals Co., Ltd. before the end of the previous period. The parent company determined that it still retains control over SK Chemicals Daejeong Co., Ltd. based on the fact that the parent company's representative continues to serve as the CEO and holds decision-making authority in the event of a deadlock, even after the sale of the shares

(2) Summary financial information of subsidiaries

As of the end of the reporting period, the summary of the major subsidiaries' financial information among the consolidated subsidiaries is as follows.

<Current period/Current period>

(Unit: KRW one thousand)

Company Name	Assets	Liabilities	Equity	Sales	Net income (loss)
SK Environmental Materials (Yantai) Co., Ltd.	77,007,755	37,300,304	39,707,451	54,459,556	1,505,765
SK Environmental Protection Materials (Yantai) Co., Ltd.	6,379,079	4,683,095	1,695,984	27,231,047	512,552
Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.	183,841,158	145,218,497	38,622,661	55,477,615	(15,199,703)
SK bioscience Co., Ltd.	2,154,168,535	373,594,819	1,780,573,716	156,286,429	(66,662,439)
SK bioscience USA, Inc.	7,401,865	406,215	6,995,650	-	(1,954,412)
SK bioscience Germany GmbH	381,453,550	14,961,385	366,492,165	-	(775,286)
IDT Biologika GmbH(Note 1, 2)	969,256,731	419,247,767	550,008,964	108,836,904	(1,865,959)
Technik-Energie-Wasser Servicegesellschaft mbH(Note 2)	91,515,880	19,696,149	71,819,731	17,305,730	11,580,730
SK Multi-Utility Co., Ltd.	701,544,731	537,274,634	164,270,097	126,535,966	(2,521,536)
SK Chemicals Daejeong Co., Ltd.	18,718,061	4,040,502	14,677,559	18,487,519	974,839
SK Chemicals America	66,259,427	52,387,981	13,871,446	99,680,615	2,528,168
SK Chemicals GmbH	69,567,372	54,983,871	14,583,501	120,234,069	2,663,780
SK Chemicals Malaysia	582,442	135,742	446,700	832,214	27,992
Total	4,727,696,586	1,663,930,961	3,063,765,625	785,367,664	(69,185,509)

(Note 1) The consolidated financial information includes subsidiaries.

(Note 2) The financial information is from after the acquisition of control in October 2024.

<Previous period/Previous period>

(Unit: KRW one thousand)

Company Name	Assets	Liabilities	Equity	Sales	Net income (loss)
SK chemicals (Suzhou) Co., Ltd.	16,069,710	17,086	16,052,624	833,285	(3,155,154)
SK Environmental Materials (Yantai) Co., Ltd.	68,324,582	34,086,883	34,237,699	35,950,489	117,966
SK Environmental Protection Materials (Yantai) Co., Ltd.	3,225,891	2,191,963	1,033,928	21,020,185	541,811
Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.	159,831,991	110,111,889	49,720,102	16,077,437	(13,831,354)
SK bioscience Co., Ltd.	1,854,403,337	148,035,690	1,706,367,647	369,505,556	24,406,962
SK bioscience USA, Inc.	4,586,343	548,174	4,038,169	-	(2,089,243)
SK Multi-Utility Co., Ltd.	551,334,039	384,152,393	167,181,646	135,773,293	3,510,065
SK Chemicals Daejeong Co., Ltd.	19,273,010	4,212,600	15,060,410	20,570,517	1,744,356
SK Chemicals America	40,544,296	30,766,989	9,777,307	95,430,625	2,200,589
SK Chemicals GmbH	51,566,992	40,616,522	10,950,470	114,683,693	2,116,148
SK Chemicals Malaysia	455,893	102,450	353,443	740,343	15,299
Total	2,769,616,084	754,842,639	2,014,773,445	810,585,423	15,577,445

The above summarized financial information reflects the amounts after accounting for goodwill, fair value adjustments arising from the business combination, and adjustments for differences in accounting policies with the parent company, with intercompany transactions excluded prior to elimination.

1-3 Current status of affiliates and joint ventures investments

The status of affiliates and joint ventures investments as of the end of the reporting period is as follows.

Company Name	Location	Month of settlement	Equity interest (%)	Major operating activities
Entis Co., Ltd.	Republic of Korea	December	50.00	Manufacturing
JSI Co., Ltd.	Republic of Korea	December	40.00	Resin manufacturing
HDC Polyall Co., Ltd.	Republic of Korea	December	20.00	Manufacturing

1-4 Details of changes in the subsidiaries

The major subsidiaries that were excluded from or added to the scope of preparation of the consolidated financial statements during the current and previous periods are as follows.

<Current period>

Classification	Name of subsidiaries	Reason
Added	SK bioscience Germany GmbH	New investment
Added	IDT Biologika GmbH (Note 1)	New Acquisition
Added	IDT Biologika Corporation (Note 2)	New Acquisition
Added	Technik-Energie-Wasser Servicegesellschaft mbH (Note 1)	New Acquisition
Excluded	SK chemicals (Suzhou) Co., Ltd.	Equity Sale

(Note 1) It is a subsidiary of SK Bioscience Germany GmbH.

(Note 2) It is a subsidiary of IDT Biologika GmbH.

<Previous period>

Classification	Name of subsidiaries	Reason
Added	Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.	New investment

1-5 Non-controlling interest

(1) The details of the non-controlling interest as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	SK bioscience Co., Ltd. (Note 1)	SK Chemicals Daejeong	Total
Ratio of non-controlling interest	33.55%	50.00%	
Assets	2,843,596,037	18,718,061	2,862,314,098
Liabilities	821,143,859	4,040,502	825,184,361
Net assets	2,022,452,178	14,677,559	2,037,129,737
Non-controlling interest	824,934,213	7,338,779	832,272,992

(Note 1) This is the consolidated financial information of SK bioscience.

<End of the previous period>

(Unit: KRW one thousand)

Classification	SK bioscience Co., Ltd. (Note 1)	SK Chemicals Daejeong	Total
Ratio of non-controlling interest	32.24%	50.00%	
Assets	1,852,439,180	19,273,010	1,871,712,190
Liabilities	148,583,864	4,212,600	152,796,464
Net assets	1,703,855,316	15,060,410	1,718,915,726
Non-controlling interest	549,539,588	7,530,205	557,069,793

(Note 1) This is the consolidated financial information of SK bioscience.

(2) The details of net income for the non-controlling interest, etc., during the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	SK bioscience Co., Ltd. (Note 1)	SK Chemicals Daejeong	Total
Ratio of non-controlling interest	33.55%	50.00%	
<Total comprehensive income>			
Net income	(50,117,070)	974,839	(49,142,231)
Other comprehensive income (loss)	84,535,454	(157,690)	84,377,764
Total comprehensive net income	34,418,384	817,149	35,235,533
Net income (loss) attributable to non-controlling interests	(13,690,899)	487,420	(13,203,479)
Total comprehensive income allocated for non-controlling interest	19,182,791	408,575	19,591,366
<Cash flows>			
Cash flows from operating activities	(42,954,019)	914,382	(42,039,637)
Cash flows from investment activities	17,972,059	(310,594)	17,661,465
Cash flows from financing activities	81,744,991	(1,096,605)	80,648,386
Effect of exchange rate fluctuations	2,567,683	25,718	2,593,401
Net change in cash and cash equivalents	59,330,714	(467,099)	58,863,615

(Note 1) This is the consolidated financial information of SK bioscience.

<Previous period>

(Unit: KRW one thousand)

Classification	SK bioscience Co., Ltd. (Note 1)	SK Chemicals Daejeong	Total
Ratio of non-controlling interest	32.24%	50.00%	
<Total comprehensive income>			
Net income	22,317,719	1,744,356	24,062,075
Other comprehensive income (loss)	(61,137,420)	(27,292)	(61,164,712)
Total comprehensive net income	(38,819,701)	1,717,064	(37,102,637)
Net income allocated for non-controlling interest	7,101,894	872,178	7,974,072
Total comprehensive income allocated for non-controlling interest	(12,353,117)	858,532	(11,494,585)
<Cash flows>			
Cash flows from operating activities	9,460,793	1,003,644	10,464,437
Cash flows from investment activities	(14,597,129)	519,787	(14,077,342)
Cash flows from financing activities	(28,879,989)	(1,090,997)	(29,970,986)
Effect of exchange rate fluctuations	2,338,304	-	2,338,304
Net change in cash and cash equivalents	(31,678,021)	432,434	(31,245,587)

(Note 1) This is the consolidated financial information of SK bioscience.

Stock options granted by the subsidiary (SK bioscience)

	All subsidiaries		
	Subsidiaries		
	SK bioscience Co., Ltd.		
	Share-based payment agreements		
	Stock options		
	Scope		Total scope
	Sub-scope	Upper scope	
Grant date of share-based payment agreements			2018.12.11
Number of stock options outstanding under share-based payment agreements (Unit: stocks)			218,520
Description of the maximum expiration period of stock options granted under share-based payment agreements	2021.12.12	2028.12.11	
Exercise price, stock options granted (Unit: KRW, stocks)			9,154
Weighted average fair value as of the measurement date, stock options granted (Unit: KRW, stocks)			1,649

Amendment of the terms of stock options granted by the subsidiary (SK bioscience)

	All subsidiaries	
	Subsidiaries	
	SK bioscience Co., Ltd.	
	Share-based payment agreements	
	Stock options	
	Adjustment of terms	
	Before adjustment	After adjustment
Number of financial instruments granted under share-based payment agreements (Unit: stocks)	18,209	546,270
Exercise price, stock options granted (Unit: KRW, stocks)	274,621	9,154
Weighted average fair value as of the measurement date, stock options granted (Unit: KRW, stocks)	49,465	1,649

Fair value of stock options granted by the subsidiary (SK bioscience) and the variables applied in the model

	All subsidiaries
	Subsidiaries
	SK bioscience Co., Ltd.
	Share-based payment agreements
	Stock options
	Valuation method
	Binomial model
Grant date of share-based payment agreements	2018.12.11
Weighted average stock price, stock options granted (Unit: KRW, stocks)	9,154
Exercise price, stock options granted (Unit: KRW, stocks)	9,154
Expected stock price volatility, stock options granted	0.1190
Risk-free interest rate, stock options granted	0.0194

Amendment of the terms of stock options granted by the subsidiary (SK bioscience)

Current period

(Unit: KRW one thousand)

	All subsidiaries
	Subsidiaries
	SK bioscience Co., Ltd.
	Share-based payment agreements
	Stock options
Grant date of share-based payment agreements	2018.12.11
Number of outstanding stock options under the beginning share-based payment agreements (Unit: stocks)	218,520
Number of stock options exercised under share-based payment agreements (Unit: stocks)	0
Number of stock options outstanding at the end of the period under share-based payment agreements (Unit: stocks)	218,520
Beginning stock options	360,304
Stock options exercised under share-based payment agreements	0
Ending stock options	360,304

Previous period

(Unit: KRW one thousand)

	All subsidiaries
	Subsidiaries
	SK bioscience Co., Ltd.
	Share-based payment agreements
	Stock options
Grant date of share-based payment agreements	2018.12.11
Number of outstanding stock options under the beginning share-based payment agreements (Unit: stocks)	546,270
Number of stock options exercised under share-based payment agreements (Unit: stocks)	(327,750)
Number of stock options outstanding at the end of the period under share-based payment agreements (Unit: stocks)	218,520
Beginning stock options	432,364
Stock options exercised under share-based payment agreements	(72,060)
Ending stock options	360,304

(Note 1) Ending stock options: The stock options granted by SK Bioscience are included in the non-controlling interest of the consolidated companies.

2. Significant Accounting Policies and Basis of Preparation

2-1 Standards for the preparation of consolidated financial statements

SK chemicals Co., Ltd. and its subsidiaries (hereinafter referred to as the "Group") have prepared their financial statements based on historical cost, except for derivative financial instruments, liabilities, equity financial assets, and contingent consideration, which are measured at fair value. The book value of assets and liabilities designated as hedged items in a fair value hedge is not recorded at amortized cost but is adjusted to reflect changes in fair value that correspond to the risks being hedged within the effective hedge relationship. These consolidated financial statements are presented in Korean won, and other amounts are also expressed in KRW unless otherwise specified. The consolidated financial statements are prepared on a historical cost basis, except for certain financial assets and liabilities that are measured at fair value.

2-2 Applicable accounting standards

The financial statements of the consolidated companies have been prepared in accordance with the Korean International Financial Reporting Standards (K-IFRS) enacted in accordance with the Act on External Audit of Stock Companies, Etc.

2-3 Consolidation standards

The consolidated financial statements consist of the financial statements of the controlling company and its subsidiaries as of December 31 of each fiscal year. Control is acquired if and when they are exposed to, or have rights to, the variable gains from their involvement with the investee and when they have the ability to influence such gains through their power over the investee. Specifically, the consolidated companies control the investee only if and when they have all of the following:

- The power over the investee (i.e., the present rights that give the ability to direct the relevant activities of the investee)
- Exposure or right to the variable gains from involvement with the investee
- The ability to use its power over the investee to affect its returns

When the parent company holds less than the majority of the voting rights of the investee, it evaluates whether it has power over the investee by considering all facts and circumstances, including the following:

- A contractual arrangement between the investor and other voting right holders
- Other rights arising from contractual agreements
- Voting rights and potential voting rights of the consolidated companies

The consolidated companies reassess whether they control the investee if any facts and circumstances indicate a change in one or more of the 3 elements of control. The consolidation of subsidiaries is carried out from the point in time at which the consolidated companies acquire the control over the subsidiary until they lose the control. The assets, liabilities, income, and expenses of the subsidiaries acquired or disposed of during the period are included from the date on which the consolidated companies gain the control until the date on which the consolidated companies no longer control the subsidiary.

Each component of net income and other comprehensive income is attributed to the owners of the parent company and non-controlling interests,

even if the non-controlling interests have a negative balance. If necessary, the subsidiary's financial statements are revised in order to match the accounting policies of the subsidiaries with the consolidated companies. All assets, liabilities, equity, revenue, expenses, and cash flows arising from transactions between consolidated entities are fully eliminated.

Any changes in the ownership interest of the controlling company in a subsidiary without a loss of control are accounted for as equity transactions. If the controlling company should lose its control over the subsidiary, it is accounted for as follows.

- Derecognition of the book amount of the assets and liabilities of the subsidiaries, including goodwill
- Derecognition of the book amount of the non-controlling interest
- Derecognition of the cumulative translation differences appropriated for equity
- Recognition of fair value of the consideration received
- Recognition of fair value of the investment interest owned
- Recognition of the difference resulting from the accounting above as profit or loss
- In relation to subsidiaries, the portion of the parent company's equity recognized in other comprehensive income is reclassified to net income or retained earnings, as if the consolidated entity had directly disposed of the corresponding asset or liability.

2-4 Business combination and goodwill

The business combinations are accounted for using the acquisition method. The acquisition cost is measured as the sum of the transfer price measured at fair value on the date of acquisition, and the amount of non-controlling interest for the acquiree. For each business combination, the acquirer measures its non-controlling interest in the acquiree at fair value or proportional interest of the acquiree's identifiable net assets, and the acquisition related-costs are recognized as the expenses as incurred.

The consolidated entity determines that a business has been acquired when the set of activities and assets acquired includes inputs and substantive processes that together significantly contribute to the ability to create outputs. A process (or a set of processes) is considered substantive

if (1) the process (or set of processes) is critical to the ability to continue producing outputs, and the inputs acquired include an organized workforce that has the necessary skills, knowledge, or experience to perform that process (or set of processes), or (2) the process acquired significantly contributes to the ability to continue producing outputs and is considered to be unique or scarce or cannot be replaced without significant cost, effort, or delay in the ability to continue producing outputs.

The consolidated companies classify or designate the acquired assets and assumed liabilities identifiable on the date of acquisition based on the contractual terms, economic conditions, the acquirer's operating and accounting policies, and any other relevant conditions available on the date of acquisition.

When the acquirer provides contingent consideration to the acquiree, the contingent consideration is measured at fair value on the acquisition date and included in the consideration transferred.

Subsequent changes in the fair value of contingent consideration classified as assets or liabilities are recognized in net income or other comprehensive income in accordance with IFRS 1109. Also, contingent consideration that is classified as equity is not remeasured and its subsequent settlement is accounted for within equity.

The goodwill is measured as the sum of the transfer price and the amount of non-controlling interest and the previously held interest which exceeds the net identifiable assets acquired and liabilities assumed. If the fair value of the acquired net assets exceeds the total of the consideration transferred, the consolidated entity reviews whether all acquired assets and assumed liabilities have been accurately identified and reassesses the procedures used to measure the amounts recognized on the acquisition date. If, after such a re-review, the total amount of transfer price, etc., is still lower than the fair value of the net assets acquired, the relevant difference is recognized as profit or loss.

Following the initial recognition, the goodwill is appropriated at cost minus the accumulated impairment losses. For impairment testing purposes, goodwill acquired in a business combination is allocated to each cash-generating unit or group of cash-generating units expected to benefit from the synergies of the business combination, starting from the acquisition date. This allocation is made regardless of whether other assets or liabilities of the acquiree are assigned to the respective cash-generating units or groups of cash-generating units.

In the case of disposing of an operation within the cash-generating unit for which the goodwill has been allocated, the goodwill related to the operation to be disposed of is included in the book amount of the operation when determining the profit or loss on disposal, and is also measured based on the relative value of the portion remaining within the cash-generating unit and the portion being disposed of.

2-5 Investment in affiliates and joint ventures

An affiliate is an entity over which the consolidated entity has significant influence. Significant influence is the ability to participate in the investee's decision-making regarding its financial and operating policies, but is not the control or joint control of such policies.

A joint venture is a joint agreement in which the parties having joint control over the agreement are entitled to the net assets of the agreement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The consolidated companies account for their investments in the affiliates and joint ventures using the equity method. Investments in affiliates and joint ventures are recognized as the initial acquisition cost, and the book amount is increased or decreased to recognize the consolidated companies' corresponding amount of interest among the changes in the net assets of affiliates or joint ventures after the date of acquisition.

Among the profits and losses of the affiliates and joint ventures, the corresponding amount of the interest of the consolidated companies is directly reflected in the consolidated statement of comprehensive income, and if and when any changes in the net assets of affiliates or joint ventures should arise from equity, the corresponding portion of the interest of the consolidated companies is reflected in equity, and where applicable, disclosed in the consolidated statement of changes in equity. Unrealized gains and losses resulting from transactions between the consolidated entity and affiliates and joint ventures are eliminated to the extent of the consolidated entity's interest in the affiliates and joint ventures.

Profits from affiliates and joint ventures are presented in the consolidated statement of comprehensive income as equity method profits, representing the consolidated entity's share after deducting tax effects

The reporting period for the financial statements of affiliates and joint ventures is the same as the reporting period for those of the controlling company. If needed for the application of the same accounting policies as the consolidated companies for the same transactions and events occurring under similar circumstances, the affiliates' and joint ventures' financial statements will be adjusted.

When applying the equity method, the consolidated entity assesses, at the end of each reporting period,

whether there is any objective evidence of impairment of investments in associates and joint ventures, in order to determine whether additional impairment losses need to be recognized. If impairment is needed, the difference between the recoverable amount and the book amount of affiliates and joint ventures is recognized as an impairment loss in the statement of comprehensive income.

2-6 Foreign currency translation

The consolidated companies present their financial statements in Korean won, the consolidated companies' functional currency.

(1) Transactions and balance

In preparing the financial statements of the consolidated companies, transactions conducted in a currency other than the functional currency are recorded using the exchange rate on the date of transaction. The monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate of the functional currency as of the end of the reporting period. The translation differences arising therefrom are reflected in profit or loss.

Meanwhile, the foreign currency denominated non-monetary items measured at the historical cost are recognized by applying the exchange rate on the date of the initial transaction, and the foreign currency denominated non-monetary items measured at fair value are recognized by applying the exchange rate on the date of fair value measurement. Profits or losses arising from the translation of non-monetary items are recognized as other comprehensive income or profit or loss in the same manner as the profits or losses arising from the changes in the fair value of the items.

The date of the transaction intended for determining the exchange rate to use for the initial recognition of the related assets, expenses or income (or any portion thereof) is the date on which the consolidated companies first recognize the non-monetary assets or non-monetary liabilities based on the advance payment or receipt of consideration. Where multiple advance payments or receipts are made, the consolidated companies determine the date of the transaction for each advance payment or receipt of consideration.

(2) Translation of the overseas workplaces

The assets and liabilities of overseas workplaces are translated into Korean won using the exchange rate as of the end of the reporting period, and the items in the consolidated statement of comprehensive income are translated into Korean won by applying the average exchange rate for the relevant period, with the foreign currency translation differences arising from such translations recognized as separate items of equity. Meanwhile, the accumulated foreign exchange differences recognized in equity are reflected in profit or loss at the time of disposal of the overseas workplaces. The fair value adjustments made for the book value of the goodwill and assets and liabilities arising from the acquisition of overseas workplaces are considered as the assets and liabilities of overseas workplaces and are translated at the exchange rate as of the end of the reporting period.

2-7 Profits from the contracts with customers

The consolidated companies operate two business divisions: Green Chemicals and Life Science. The Green Chemicals Business Division produces and sells the PET resins, highly functional PETG resins, industrial adhesives, etc., while the Life Science Business Division is engaged in the pharmaceutical business. For contracts with customers, and when the control of goods or services is transferred to the customer, the consolidated companies recognize the profits at an amount which reflects the consideration for which they expect to be entitled for the relevant goods or services. The consolidated companies have concluded that they are the principal in the contracts with customers since they control each specified good or service before transferring it to the customer.

(1) Sales of goods

The sales revenue of goods is generally recognized upon delivery, when the control of the assets is transferred to the customers. The typical recovery period for receivables is 30 to 90 days after delivery. The consolidated companies shall consider whether other promises under the contracts are separate performance obligations for which a portion of the transaction consideration must be allocated. In calculating the transaction price for the sales of goods, the consolidated companies consider variable consideration, significant financing factors, non-cash consideration and the consideration payable to the customers.

- Sales of vaccines and biopharmaceuticals

The sales profits from vaccines and biopharmaceuticals are generally recognized upon the delivery of the vaccines and biopharmaceuticals, when the control of the assets is transferred to the customer. The typical recovery period for receivables is 90 to 180 days after delivery. The consolidated companies consider whether other promises in the contracts constitute separate performance obligations for which a portion of the transaction consideration must be allocated. In calculating the transaction price for the sale of goods, the consolidated companies consider variable consideration, significant financing components, non-cash consideration, and the consideration payable to customers.

- Contract manufacturing and development of vaccines and biopharmaceuticals

We provide contract manufacturing and development of vaccines and biopharmaceuticals, as well as services such as bioanalysis, commissioned by our customers. There is no substitute of use for the manufactured products, and there is an enforceable right to claim payment for the completed performance. This is because the consolidated companies produce pharmaceuticals of the quality required by the customer, and if the contract is terminated by the customer, the consolidated companies can claim compensation for reasonable profits based on the cost input. The revenue from the contracts with customers is recognized when a portion of the performance obligations are satisfied, and is recognized over a portion of the period. The consolidated companies measure the rate of progress based on the output method or the input method by considering the characteristics of the goods or services promised to be transferred to the customer, and recognize the profits over a period. In accordance with the practical expedient method of Corporate Accounting Standard No. 1115, the transaction price allocated for the non-performed portion of the related contract was not disclosed.

- Contracts of joint type

The consolidated companies execute contracts with other companies not for the purpose of acquiring the outputs of a typical corporate activity, but to participate in an activity or process. If the parties to the contract share the risks and benefits arising from such activity or process, they recognize these as contracts of a joint type. Regarding the costs input for a collaboration agreement, the intangible assets or expenses are recognized depending on whether the conditions for identifiability, control, and future economic benefits are satisfied, while for the residual agreements, which are the agreements to provide distinguished goods or services and receive relevant consideration therefor, they are recognized as profits in accordance with the performance obligations identified under the contract. The performance obligations do not include the obligations to share the resources engaged in the activities or processes which form the substance of the contracts of joint type.

- Licensing: right to use

A license agreement corresponds to the right to use the intellectual property which exists at the time the license is granted, which means that at the point in time the license is transferred, the customer can direct the use of the license and acquire most of the remaining benefits from the license. When the consolidated companies provide a license to a customer, the consolidated companies recognize it as a performance obligation carried out at a point in time.

- Licensing: right to access

The consolidated companies allow customers to use drug licenses for a certain period and receive payment for the license. Additionally, they provide research services during the contract period in addition to the obligation of license provision.

① Variable consideration

If the contract includes variable consideration, the consolidated companies estimate the amount they will receive in exchange for transferring the promised goods to the customer. When the uncertainties associated with the variable consideration are later addressed, the variable consideration is estimated at the point of commencement of the contract and is included in the transaction price only to the extent that it is highly probable that a significant portion of the amount of accumulated profits recognized will not be returned. Some of the contracts for the sales of goods provide the customer with the right to return. The right to return corresponds to a variable consideration.

- Right of return

Certain contracts provide the customers with the right to return goods within a certain period. To estimate the goods which will not be returned, the consolidated companies use expected values at which they are expected to better predict the consideration to which the consolidated companies will be entitled. The constraints on estimating variable consideration under the requirements of K-IFRS 1115

also apply when determining the amount of variable consideration included in the transaction price. The consolidated companies recognize goods expected to be returned not as revenue, but as refund liabilities. The right to the returned goods and the corresponding adjustment for the cost of goods sold are recognized.

- Quantity rebate

The consolidated companies retroactively provide a quantity rebate to a specific customer for previous purchase quantities if the purchase exceeds the contractual limit. The rebate is deducted from the amount payable by the customer. To estimate the variable consideration for a rebate expected in the future, the consolidated companies apply the most probable method for contracts with only one quantity criterion and the expected value method for contracts with multiple quantity criteria. The consolidated companies consider the number of quantity criteria under the contract as a key factor in selecting the method which best predicts the variable consideration. The consolidated companies recognize refund liabilities for the anticipated future rebates by applying the requirements for the variable consideration's constraints.

② Significant financial elements

The consolidated companies do not reflect the effect of a significant financial component on the promised consideration (amount) if the period between the transfer of the promised goods or services to the customer at the commencement of the contract and the payment of the consideration is expected to be less than a year.

(2) Contract balance

① Contract assets

A contract asset is the right to receive consideration for the goods or services transferred to a customer. If the consolidated companies transfer goods or services to a customer before the customer pays the consideration or before the date on which payment is due, the asset which is the company's right to take consideration and whose right is subject to conditions other than the lapse of time is a contract asset. The contract assets are assessed for impairment.

② Trade receivables

A receivable is recognized when an amount of unconditional consideration is due for payment by and from the customer (that is, where only the lapse of time is required before the consideration is paid upon maturity). For the financial assets related accounting policies, refer to Note 2-11.

③ Contract liabilities

A contract liability is a company's obligation to transfer goods or services to a customer equivalent to the consideration which the consolidated companies have already taken from the customer (or the consideration for which the payment is due). If the customer pays the consideration before the consolidated companies transfer goods or services to the customer, the contract liabilities are recognized when it is paid or when it is due, whichever is earlier. The contract liabilities are recognized as profits when the consolidated companies carry out their performance obligations pursuant to the contract.

(3) Contractual performance cost

Contractual performance costs refer to the costs incurred from performing a contract executed with a customer. If such costs are directly related to a specific contract (or a contract that is identifiable and expected to be executed), they result in the creation or enhancement of the company's resources to be used in performing (or continuing to perform) future obligations, and are expected to be recoverable, they are recognized as an asset. The capitalized contract costs are then amortized as the cost of sales in line with the progress toward fulfilling the related performance obligations.

(4) Assets and liabilities arising from the right to return

① Right to recover the returned product

The right to recover the returned product is the consolidated companies' right to recover a product which the customer is expected to return. The assets are measured at the existing book amount of inventories minus the expected cost of recovering the products and any potential reduction in the value of the products returned.

② Refund liabilities

A refund liability is an obligation to return a portion or all of the consideration received or receivable from the customer. It is measured as the amount the consolidated companies expect to ultimately refund to the customer. The consolidated companies update the estimates of refund liabilities and changes in the transaction price accordingly at the end of each fiscal period. For the variable consideration, refer to the accounting policies above.

Refer to Note 3 for the disclosures on significant judgments, estimates and assumptions related to the profits from contracts with the customers.

2-8 Government subsidies

Government subsidies are recognized if and when there is a reasonable assurance of the receipt of the subsidies and the fulfillment of ancillary conditions therefor. Profit-related subsidies are recognized as income in line with a systematic standard over the period needed to match the costs associated with the costs they are to be intended to cover. Asset-related subsidies are recognized as deferred revenue and amortized to income each year over the useful life of the related assets.

When non-monetary assets are received as subsidies, the consolidated companies record the assets and subsidies in nominal amounts and recognize them as revenue in the statement of income on a straight-line basis over the estimated useful lives of the related assets. If a loan is provided at an interest rate lower than the market interest rate or similar support is received, the benefit from the lower interest rate is recognized as an additional government grant.

2-9 Corporate tax

(1) Current income tax

The current tax liabilities (assets) for the current and previous periods are measured at the amount expected to be paid to (refunded by and from) the tax authorities using the tax rates and tax laws enacted or substantively enacted by the end of the current period.

The current income tax related to the items directly reflected in equity are reflected in equity, and are not reflected in the consolidated statements of comprehensive income. The senior management regularly assesses the recoverability of the amount of corporate tax refund in connection with the interpretation of relevant tax laws and establishes provisioning liabilities as needed.

(2) Deferred tax

For the purposes of financial reporting of the assets and liabilities, the consolidated companies recognize the deferred income tax assets and deferred income tax liabilities for temporary differences, which are the differences between the book amount and the tax reference amount.

The consolidated companies recognize the deferred income tax liabilities for all in temporary differences, except under the following circumstances:

- Where deferred income tax liabilities arise when the goodwill is initially recognized
- Where deferred income tax liabilities arise from transactions which do not affect the accounting profits or taxable income at the time of the transaction, not a business combination transaction in which assets or liabilities are initially recognized
- As a temporary difference related to investments in subsidiaries, associates, and joint ventures,

if the reversal of the temporary difference can be controlled and it is highly likely that the temporary difference will not reverse in the foreseeable future, the timing of its reversal is considered.

Furthermore, deferred income tax assets are recognized when it is highly probable that the taxable income can be used for deductible temporary differences and unused tax credits and tax losses, except in the following cases:

- Where deferred income tax assets arise from transactions which do not affect the accounting profits or taxable income at the time of the transaction, not a business combination transaction in which assets or liabilities are initially recognized
- Where deductible temporary differences exist in connection with the investment interest in subsidiaries, affiliates, and joint ventures, and where it is not highly probable that the temporary differences will be extinguished in the foreseeable future, or where it is not probable that the taxable income for which the temporary difference can be used will arise

The book amount of the deferred income tax assets is reviewed at the end of each reporting period. If it is no longer probable that a sufficient taxable income will be available to use the benefits of some or all of the deferred income tax assets, the book amount of the deferred income tax assets is reduced. Meanwhile, the reduced amount is reversed to the extent that it is highly likely that a sufficient taxable income will be generated for use. Furthermore, at the end of each reporting period, the unrecognized deferred income tax assets are reviewed, and the previously unrecognized deferred income tax assets are recognized to the extent that it is highly probable that the deferred income tax assets will be recovered based on the future taxable income.

The deferred income tax assets and liabilities are measured using the tax rates expected to be applied for the fiscal period in which the assets are realized or liabilities are settled based on the tax rates (and the tax laws) enacted or substantively enacted by the end of the reporting period.

The current and deferred tax related to the items recognized other than the profit or loss are recognized as items other than profit or loss. The deferred tax items are recognized as other comprehensive income or reflected directly in equity depending on the relevant transaction.

If the tax benefits acquired as a part of a business combination did not satisfy the separate recognition criteria at the relevant point in time, yet were recognized during the measurement period as a result of new information on the facts and circumstances existing on the date of acquisition, the relevant deferred tax benefits are recognized. The recognized acquired deferred tax benefits are applied to reduce the book amount of the goodwill related to the acquisition, and if the book amount of the goodwill is zero, the remaining deferred tax benefits are recognized as profit or loss.

The consolidated companies are entitled to legally enforce the offset of the current tax assets and current tax liabilities, and if the taxable companies are the same, or if the taxable companies are different yet there is an intention to settle the current tax liabilities and assets in a net amount, or if there is an intention to settle the liabilities at the same time as realizing the assets for each fiscal period in the future where the deferred income tax liabilities are settled or the deferred income tax assets are recovered in a significant amount, the deferred income tax assets and deferred income tax liabilities are appropriated and presented only if and when the deferred income tax assets and deferred income tax liabilities are related to the same tax authority.

(3) Sales tax

Revenue, expenses and assets are recognized as the net amount minus applicable sales tax. However, if the sales tax related to the purchase of an asset or service cannot be refunded by and from the tax authorities, it is recognized as part of the acquisition cost or part of the expense item, and the relevant receivables and liabilities are presented as the amount including the sales tax.

The net amount of the sales tax to be refunded by or payable to the tax authority is included in the receivables or liabilities in the statement of financial position.

2-10 Retirement benefits

The consolidated companies operate a defined benefit retirement pension plan, and the benefit cost of the defined benefit plan is determined using the projected unit credit method. The remeasurement elements consisting of the actuarial profits and losses, revenue from the plan assets excluding the amount included in the net interest, and the changes in the effect of the ceiling on the asset recognition excluding the amount included in the net interest are recognized immediately as other comprehensive income and are subsequently not reclassified as profit or loss. The past service cost is recognized as an expense based whichever is the earlier of the following:

- When the plan is revised or reduced
- When the relevant restructuring costs or termination benefits are recognized

The net interest is determined by multiplying the net defined benefit liabilities (assets) by the discount rate. The consolidated companies recognize the service cost and the net interest on the net defined benefit liabilities as profit or loss for the items of the cost of goods sold and the selling, general and administrative expenses.

Meanwhile, the consolidated companies operate a defined contribution plan for some of the executives and employees, and the contribution is recognized as an expense when the executives and employees provide service at work.

2-11 Financial instruments: initial recognition and subsequent measurements

A financial instrument is any contract which creates a financial asset for one of the parties to a transaction and a financial liability or equity instrument for the other party to the transaction.

(1) Financial assets

1) Initial recognition and measurement

Financial assets are classified into financial assets measured at amortized cost upon initial recognition, financial assets measured at fair value through other comprehensive income, and financial assets measured at fair value through profit or loss.

The classification of financial assets upon initial recognition varies depending on the contractual cash flows' characteristics of the financial assets and the business model of the consolidated companies for managing the financial assets. Excluding the trade and other receivables which do not contain a significant financial element or for which the practical expedient method is applied, the consolidated companies initially measure the financial assets at fair value, and unless they are not the financial assets measured at fair value through profit or loss, they add or subtract the transaction cost. Trade and other receivables, which do not include a significant financing element or for which the practical expedient method is applied, are measured at the transaction cost determined in accordance with Corporate Accounting Standard No. 1115.

To measure the financial assets at amortized cost or fair value through other comprehensive income, the cash flows must consist of solely payments of principal and interest (SPPI). This assessment is called the SPPI test and is performed at the level of the individual instrument. The consolidated companies' business model for the management of financial assets relates to the management of financial assets intended to generate cash flows. The business model determines whether the source of cash flows is the receipt or sale of the contractual cash flows of the financial assets, or whether it is both.

The purchase or sale of financial assets (standardized transaction) in which the financial assets are required to be transferred within a time frame established by market agreement or regulation is recognized on the date of transaction. That is, it is recognized on the date on which the consolidated companies agree to purchase or sell the financial assets.

2) Subsequent measurements

For the subsequent measurements, the financial assets are classified into the following four categories:

- Financial assets measured at amortized cost (debt instruments)

- Financial assets measured at fair value through other comprehensive income (debt instruments), with accumulated gains or losses recycled to profit or loss
- Financial assets measured at fair value through other comprehensive income (equity instruments), with accumulated gains or losses not recycled to profit or loss
- Financial assets measured at fair value through profit or loss

① Financial assets measured at amortized cost (debt instruments)

This category is most closely related to the consolidated companies. The consolidated companies measure the financial assets at amortized cost if and when all of the following terms and conditions are satisfied.

- Under a business model whose objective is to hold financial assets to collect contractual cash flows, • the financial asset generates cash flows consisting solely of payments of principal and interest on the principal amount outstanding, in accordance with the terms of the financial asset.

The financial assets measured at amortized cost are subsequently measured using the effective interest rate (EIR) method, and the impairment is recognized. The profits and losses arising from the derecognition, change or impairment of assets are recognized as profit or loss.

② Financial assets measured at fair value through other comprehensive income (debt instruments)

The consolidated companies measure the debt instruments which satisfy all of the following terms and conditions as financial assets at fair value through other comprehensive income.

- Financial assets are held under a business model which achieves purposes through both the receipt of contractual cash flows and the sale of financial assets, and
- According to the contractual terms and conditions of financial assets, cash flows consist only of principal and interest payments which are generated on a specific date.

For the debt instruments measured at fair value through other comprehensive income, the interest income, foreign currency translation profits and losses, and impairment or reversal are calculated in the same manner as financial assets measured at amortized cost and are recognized as profit or loss. The rest of the changes in fair value are recognized as other comprehensive income. When the financial assets are derecognized, the accumulated change in fair value recognized as other comprehensive income is recirculated as profit or loss. Other comprehensive income of the consolidated entity - debt instruments measured at fair value are included in debt instruments classified as non-current assets.

③ Financial assets measured at fair value through other comprehensive income (equity instruments)

Upon the initial recognition, the consolidated companies can make an irrevocable selection to measure the equity instruments which satisfy the definition of equity under Corporate Accounting Standard No. 1032 'Presentation of Financial Instruments' and which are not held for investment purposes at fair value through other comprehensive income.

The profits and losses arising from such financial assets are not recirculated as profit or loss. Dividends are recognized in the statement of income as other income and accounted for as other comprehensive income when the entitlement is confirmed, except when the consolidated companies profit by recovering a portion of the cost of the financial assets. No impairment is recognized for the equity instruments measured at fair value through other comprehensive income.

The consolidated companies can also make irrevocable selections for the unlisted equity instruments.

④ Financial assets measured at fair value through profit or loss

Financial assets measured at fair value through profit or loss include trading items, financial assets designated for measurement at fair value through profit or loss upon initial recognition, or financial assets required to be measured at fair value. Financial assets acquired for the purpose of sale or repurchase within a short period are classified as the trading items.

Derivatives, including separated embedded derivatives, are classified as the trading items unless they are designated as effective hedging instruments. Financial assets that do not solely consist of cash flows from principal and interest are classified and measured as fair value through profit or loss, regardless of the business model.

As described in the paragraph above, notwithstanding the fact that the debt instruments are classified as financial assets measured at amortized cost or fair value, if the accounting mismatch can be derecognized or significantly reduced, the debt instruments may be designated to be measured at fair value through profit or loss.

The financial assets measured at fair value through profit or loss are presented at fair value in the statement of financial position, and the net changes in fair value are recognized as profit or loss in the statement of income.

This category includes the derivatives and the traded equity instruments for which no irrevocable selection was made to account for the changes in fair value as other comprehensive income. The dividends for the traded equity instruments are recognized as profit or loss when the rights are confirmed.

As for the derivatives embedded in hybrid contracts, the economic characteristics and risks are not closely related to the main contract, and the separate instruments with the same conditions as the embedded derivative satisfy the definition of derivative, and if the hybrid contract is not measured at fair value through profit or loss, it is accounted for as derivative as a separate derivative from the main contract. The embedded derivatives are measured at fair value, and the changes in fair value are recognized as profit or loss. A reevaluation occurs only when there is a change in the terms and conditions of the contract which significantly alters the cash flows, or when the financial instrument no longer qualifies for measurement at fair value through profit or loss.

In hybrid contracts for which the main contract is a financial asset, embedded derivatives are not accounted for separately. The financial assets and embedded derivatives, which are the main contracts, are classified as financial assets measured at fair value through profit or loss.

3) Derecognition

A financial asset (or a portion of a financial asset or of a group of similar financial assets) is derecognized with priority under the following circumstances:

- The right to receive cash flows from financial assets is extinct, or
- The Group transfers its contractual rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement. In such an event, the consolidated companies neither transfer substantially most of the risks and rewards of holding the financial assets, nor transfer or hold most of the risks and rewards of holding the financial assets, yet transfer the control over the assets.

When the consolidated companies transfer the right to receive cash flows from a financial asset or execute a pass-through contract, they assess whether they maintain the risks and rewards of owning the assets. If the consolidated companies have neither held nor transferred most of the risks and rewards of a financial asset, it would continue to recognize the financial asset to the extent that it continues to be involved with it. In such an event, the consolidated companies recognize the relevant liabilities. The liabilities related to the transferred assets are measured by reflecting the rights and obligations of the consolidated companies.

The continuous involvement, which takes the form of providing guarantees, is measured either as the book amount of the assets transferred or the largest amount which may be required for repayment among the considerations received, whichever is the lesser.

4) Impairment of financial assets

The detailed disclosures made in connection with the impairment of financial assets are provided in the notes below.

- Disclosures on the significant assumptions
- Debt instruments measured at fair value through other comprehensive income
- Trade receivables including contract assets

The consolidated companies recognize the allowance for expected credit loss (ECL) for all debt instruments, except for the items measured at fair value through profit or loss. The expected credit loss is estimated by discounting the differences between the cash flows agreed to be received under contract and all cash flows expected to be received by the consolidated companies, discounted at the initial effective interest rate. The expected cash flows include the cash flows from the disposal of collateral held or from other credit enhancements which are among the essential terms and conditions of the contract.

The expected credit loss is recognized in two stages. For credit exposures with no significant increase in the credit risk since the initial recognition, the expected credit loss reflects the credit losses (expected credit loss for 12 months) arising from any events of default likely to occur within the next 12 months.

For credit exposures with a significant increase in the credit risk after the initial recognition, the loss allowance is required to measure the expected credit loss over the remainder of the surviving period for the exposure regardless of when an event of default occurs (expected credit loss over the entire period).

For the trade and other receivables and contract assets, the consolidated companies may apply the simplified method for the calculation of the expected credit loss. Thus, in lieu of tracking changes in the credit risk, the consolidated companies recognize the loss allowance on each date of settlement as an amount equivalent to the expected credit loss over the entire period. The consolidated companies place a provisioning rate table based on the past credit loss experiences adjusted to reflect the future prospects for specific debtors and economic environments.

For the debt instruments measured at fair value through other comprehensive income, the consolidated companies apply the low credit risk expedient method. On each date of settlement, the consolidated companies assess whether a debt instrument is considered to have a low credit risk using all reasonable and supportable information available without undue cost or effort. For such assessment, the consolidated companies re-evaluate the internal credit ratings of the relevant debt instrument. Furthermore, the consolidated companies consider whether there is a significant increase in the credit risk when the contractual payment exceeds 30 days.

If the consolidated companies' debt instruments measured at fair value through other comprehensive income consist only of the traded bonds with the highest investment rating, they are considered to be low-credit risk investment assets. The consolidated companies' policy is to measure such instruments at the 12-month expected credit loss. However, if there is a significant increase in the credit risk after the initial recognition, the loss allowance is calculated based on the expected credit loss over the entire period. The consolidated companies use the ratings of credit rating agencies to determine whether the credit risk of debt instruments has significantly increased and measure the expected credit loss.

The consolidated companies consider it a default if any contractual payment is overdue for over 90 days. However, under certain circumstances, the consolidated companies may consider that an event of default has occurred against financial assets if and when internal or external information indicates that the consolidated companies will not be able to receive the principal in full under contract until all credit enhancements by the consolidated companies are considered. A financial asset is derecognized if and when there is no reasonable expectation to recover the cash flows under contract.

(2) Financial liabilities

1) Initial recognition and measurement

Upon the initial recognition, financial liabilities are appropriately classified as financial liabilities measured at fair value through profit or loss, loans and borrowings, and the accounts payable or derivative instruments are designated as effective hedging instruments.

All financial liabilities are initially recognized at fair value. For loans, borrowings, and payables, directly attributable transaction costs are deducted from the initial measurement.

The consolidated companies' financial liabilities include the trade payables and other accounts payable, loans and borrowings including overdrafts and the derivatives liabilities.

If a financial liability arising from supplier financing agreements has attributes and functions similar to trade payables, the consolidated entity classifies it as trade payables and other payables in the consolidated statement of financial position. This applies when the supplier financing agreement of the consolidated entity is part of working capital used within the normal operating cycle, the level of collateral provided is similar to trade payables, and the terms of the liability arising from the supplier financing agreement are not substantially different from the terms of trade payables that are not related to supplier financing agreements. When a liability arising from a supplier financing agreement is classified as trade payables and other payables in the consolidated statement of financial position, the related cash flows are included in operating activities in the consolidated cash flow statement.

2) Subsequent measurements

The measurement of financial liabilities is governed by the classifications mentioned below.

① Financial liabilities measured at fair value through profit or loss

Financial liabilities measured at fair value through profit or loss include the trading financial liabilities and the financial liabilities designated to be measured at fair value through profit or loss upon the initial recognition.

Financial liabilities are classified as trading items if they are repurchased within a short period. This category also includes the derivatives which are not designated as hedging instruments in a hedging relationship as defined in Corporate Accounting Standard No. 1109. Furthermore, the separated embedded derivatives are classified as trading items unless they are designated as effective hedging instruments.

Profits or losses on financial liabilities, which are trading items, are recognized as profit or loss.

The financial liabilities designated as items measured at fair value through profit or loss are designated only upon the initial recognition if the criteria provided under Corporate Accounting Standard No.1109 are satisfied. The consolidated companies have not designated any financial liabilities interest bearing loans fair value through profit or loss.

② Financial liabilities measured at amortized cost (loans and borrowings)

After the initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the effective interest method. Any profits or losses arising from the derecognition of a liability or from the effective interest rate amortization procedures is recognized as net profit or loss.

The amortized cost is calculated by taking into account any discounts or premiums for the fees or costs which form an essential part of the effective interest rate.

This category is generally applied for interest-bearing loans or borrowings.

3) Derecognition of financial liabilities

Financial liabilities are derecognized if and when the payment obligations are fulfilled, canceled or expired. If and where an existing financial liability is exchanged for a financial liability with the same lender yet under substantially different terms and conditions, or where the terms and conditions of the existing liability are materially changed, such exchange or change results in the derecognition of the initial liability and the recognition of a new liability. Any difference between the book amounts is recognized in profit or loss.

(3) Offset of financial assets and financial liabilities

Financial assets and financial liabilities are offset and presented at their net amount in the consolidated statement of financial position when the entity currently has a legally enforceable right to offset the recognized assets and liabilities, or when it intends to settle them

on a net basis or realize the asset and settle the liability simultaneously.

2-12 Measurement of fair value

The consolidated companies assess the financial instruments such as derivatives at fair value as of the end of the reporting period. Disclosures made on the fair value of financial instruments measured at fair value or for which fair value is disclosed are provided under Note 35.

Fair value is the price which would be received in selling an asset or paid to transfer a liability in a normal transaction by and between the market participants on the date of measurement. The fair value measurement assumes that a transaction of selling an asset or transferring a liability takes place in one of the following markets:

- Primary market for assets or liabilities
 - The most advantageous market only when there is no primary market for the assets or liabilities
- The consolidated companies must be able to access the primary (or the most advantageous) market.

The fair value of an asset or liability is measured based on the assumptions which the market participants use when determining the price for the asset or liability under the assumption that the market participants act to the best of their ability and in their economic interest.

When measuring the fair value of a non-financial asset, the ability of the market participant who sells the asset to another market participant who has best used or who will best use the asset to create economic benefits is considered.

The consolidated companies use the valuation techniques which are appropriate for the given circumstances and for which adequate data are available to measure the fair value while maximizing the use of relevant observable input variables and minimizing the use of unobservable input variables.

All assets and liabilities measured or disclosed at fair value in the consolidated financial statements are classified into the following fair value hierarchy based on the lowest level of input variables which are significant for fair value measurement.

- Level 1 - Quoted (unadjusted) price in an accessible and active market for the same asset or liability
- Level 2 - Fair value using an input variable for which the input variable of the lowest level significant for the fair value measurement is directly or indirectly observable
- Level 3 - Fair value using the unobservable input variable of the lowest level significant for the fair value measurement

Regarding the assets and liabilities which are repeatedly measured at fair value in the consolidated financial statements, at the end of each reporting period, the consolidated companies determine whether there is any movement between the levels of the hierarchy by undertaking a reevaluation of the classification based on the input variable of the lowest level significant for the fair value measurement.

For the fair value's disclosure purposes, the consolidated companies determine the classification of assets and liabilities and the levels of the fair value hierarchy based on their nature, characteristics, and their risks.

2-13 Derivatives and hedge accounting

(1) Initial recognition and subsequent measurement

The consolidated companies use derivatives such as currency futures contracts and commodity forward contracts to hedge the foreign exchange risk, interest rate risk, and commodity price risk, and such derivatives are initially recognized at fair value on the date of contract execution, and thereafter, are subsequently remeasured at fair value. Derivatives are recognized as financial assets when their fair value is positive and as financial liabilities

when their fair value is negative, and they are subsequently remeasured. Meanwhile, any changes in the fair value of derivatives are directly reflected in the consolidated statement of comprehensive income, and the effective portion of the cash flow hedging is reflected in other comprehensive income.

For hedge accounting, hedging is classified as follows.

- Fair value hedging: hedging against changes in the fair value of recognized assets and liabilities and unrecognized firm contracts
- Cash flow hedge: hedging against changes in the cash flows arising from the foreign currency risk of recognized assets and liabilities, highly probable expected transactions, or unrecognized firm contracts

Upon the commencement of the hedging relationship, the consolidated companies formally designate and document the hedging relationship for which they seek to apply hedge accounting, the risk management objectives and the hedging strategies.

The documentation includes the hedging instruments, the hedged items, the nature of the hedged risks, and the method of assessing whether the hedging relationship satisfies the provisions for hedging effectiveness (including the analysis of the cause of hedging ineffectiveness and the method of determining the hedging ratio). The hedging relationship shall satisfy all of the following provisions related to hedging effectiveness.

- There is an 'economic relationship' between the hedged items and the hedging instruments.
- The effect of credit risk does not account for 'most of the changes in value' resulting from the economic relationship between the hedged items and the hedging instruments.
- The hedging ratio of the hedging relationship is equivalent to the ratio between the number of hedged items which the relevant company actually hedges and the number of hedging instruments actually used by the consolidated companies to hedge the risks of the number of hedged items.

Hedging relationships satisfying the criteria for hedge accounting are accounted for as follows.

- Fair value hedging

Changes in the fair value of the hedging instruments are recognized as profit or loss. The changes in the fair value of the hedged item due to the hedged risk are included in the carrying amount of the hedged item and recognized in profit or loss for the period.

The book amounts' adjustments for fair value hedging of the items measured at amortized cost are amortized using the effective interest method over the surviving period of the hedging. Amortization at the effective interest rate can begin immediately after the adjustment is made, and at the latest, must begin before the adjustment of the hedged items for hedging profits or losses is discontinued.

When the hedged items are derecognized, the unamortized fair value is immediately derecognized and recognized as profit or loss.

If an unrecognized firm contract is designated as a hedged item, the cumulative change in the fair value of the firm contract attributable to the hedged risk is recognized as an asset or liability, and the corresponding profit or loss thereto is recognized as profit or loss.

- Cash flow hedging

The effective portion of profit or loss from hedging instruments is recognized as other comprehensive income within the cash flow hedge reserves, and the ineffective portion is recognized immediately as profit or loss. The cash flow hedge reserves are adjusted to the accumulated profit or loss of the hedging instruments and the accumulated fair value change of the hedged items, whichever is the smaller.

The consolidated entity can hedge exposure to foreign currency risks from anticipated transactions or firm commitments through forward foreign exchange contracts, and hedge the volatility of commodity prices through forward commodity contracts. The ineffective portion related to the currency forward contracts is recognized as other expenses, and the ineffective portion related to the forward commodity contracts is recognized as other operating income or other operating expenses. For more details, please refer to Note 23.

The amount accumulated for other comprehensive income (cash flow hedge reserves) is accounted for in line with the characteristics of the hedging transactions. If the hedged transactions subsequently recognize a non-financial item, the cash flow hedge reserves are derecognized and included for the amount of the relevant asset or liability initially recognized. This is not a reclassification adjustment and does not affect other comprehensive income. This is also applied if and when the hedged transaction for a non-financial asset or non-financial liability becomes a firm contract for which fair value hedge accounting is subsequently applied.

With regard to the cash flow hedging, the cash flow hedge reserves are reclassified as profit or loss during the period in which the hedged cash flows affect the profit or loss.

If cash flow hedge accounting is discontinued, the cash flow hedge reserves are retained as other comprehensive income if and when the hedged expected cash flows are still expected to be generated. Otherwise, the cash flow hedge reserves are accounted for immediately as profit or loss based on the reclassification adjustment. If the hedged expected cash flows are generated following the discontinuation, the cash flow hedge reserves ought to be accounted for in line with the nature of the underlying transactions as explained in the above.

2-14 Cash and cash equivalents

The cash and cash equivalents in the consolidated statement of financial position consist of savings accounts, small amounts of cash, and short-term deposits with maturities of 3 months or less at the time of acquisition.

2-15 Inventories

The consolidated companies assess the inventories at the acquisition cost or the net realizable value, whichever is the less of the two, and the acquisition cost for each inventory asset includes the purchase cost, conversion cost, and the other costs incurred in bringing the inventory asset to its present location and condition. The unit cost of inventories is determined using the moving average method.

2-16 Tangible assets

Construction in progress is the balance of acquisition cost minus the accumulated impairment losses, and the tangible assets are presented as the balance of acquisition cost minus the accumulated depreciation and accumulated impairment losses. Such costs include the replacement costs satisfying the recognition criteria of assets and the borrowing costs for the long-term construction projects. Where a major part of tangible assets needs to be replaced regularly, the consolidated companies recognize the relevant part as an individual asset and depreciate it over the relevant useful life. Furthermore, if an asset satisfies the recognition criteria such as the comprehensive testing cost, it is included among the book amount for tangible assets, and all repair and maintenance costs are reflected in the profit or loss when incurred. If the estimated costs to remove, dismantle, or restore the land after the economic use of the tangible asset has ended meet the recognition criteria for a provision, the present value of those expenditures is included in the acquisition cost of the tangible asset.

Meanwhile, the depreciation for tangible assets is appropriated using the straight-line method in line with the economic useful lives of each asset below.

Classifi cation	Useful life
Building	19 to 40 years
Structure	19 to 40 years
Mechanical equipment	5 to 25 years
Vehicles and transport equipment	4 to 6 years
Other tangible assets	3 to 6 years

The tangible assets are derecognized upon disposal or when no future economic benefits are expected through their use or disposal, and the resulting difference between the net disposal value and the book amount is reflected in the profit or loss at the time of derecognition.

At the end of each reporting period, the consolidated companies review the adequacy of the estimated residual value, estimated useful life, and the depreciation method for tangible assets, and where any changes are needed, apply them in a forward-looking manner, and at this time, the impacts of health, safety and environmental laws and regulations are reviewed.

2-17 Borrowing cost

Borrowing costs directly related to the acquisition, construction or production of an asset which requires a significant period to be used for the intended use or ready for sale are capitalized as part of the cost of the relevant asset. Other borrowing costs are appropriated as expenses when incurred. The borrowing costs consist of the interests incurred in connection with the borrowing of funds and the other costs.

2-18 Investment real estate properties

Investment real estate properties are measured at acquisition cost plus the relevant transaction costs, and include the replacement cost that meets the recognition criteria for the assets when incurred. However, costs incurred in day-to-day management activities are recognized as expenses when they are incurred. Following the initial recognition, the investment real estate properties are appropriated at fair value reflective of the market conditions as of the end of the reporting period, and the profit or loss resulting from any changes in the fair value are reflected in profit or loss when incurred.

When it is expected that future economic benefits can no longer be profited from the disposal or use of the investment real estate properties, the consolidated companies derecognize them from the consolidated financial statements, and the resulting difference between the net amount of disposal and the book amount is reflected in profit or loss when derecognized. The consideration (amount) to be included in the profit or loss arising from the derecognition of investment real estate properties is calculated in accordance with the requirements on the calculation of transaction price as provided under Corporate Accounting Standard No. 1115.

In addition, if and only if the purpose of use of the relevant asset is changed, it is transferred from the investment real estate properties to another account or from another account to the investment real estate properties. When it is transferred from the investment real estate properties to tangible assets, the fair value at the point where the purposes of use are changed is applied as the deemed cost. Furthermore, when the tangible assets are replaced with investment real estate properties, the relevant real estate properties are accounted for in the same manner as the tangible assets until the purposes of use are changed.

2-19 Lease

At the point of a contractual commitment, the consolidated companies determine whether the contract itself is a lease or includes a lease by considering whether the contract transfers control over the use of the identified asset for a certain period in exchange for consideration under contract.

(1) Consolidated companies as the lessee

The consolidated companies apply the single recognition and measurement approach for all leases, with the exception of short-term leases and leases for the underlying assets of small amounts. The consolidated companies recognize a lease liability presenting an obligation to make lease payments and the right-of-use assets presenting the right to use the underlying assets.

1) Right-of-use assets

The consolidated companies recognize the right-of-use assets on the date of commencement of the lease (that is, when the underlying assets are available for use). The right-of-use assets are measured at cost, and a cost model was applied for the subsequent measurement. To apply the cost model, accumulated depreciation and accumulated impairment losses are deducted,

and adjustments due to the remeasurement of lease liabilities are reflected. The cost of the right-to-use asset includes the amount of the recognized lease liability, initial direct cost, and the lease payments made on or before the date of commencement of the lease minus any lease incentives received. The right-of-use assets are depreciated on a straight-line basis over the lease term or the estimated useful lives of the assets, whichever is the shorter.

If the ownership of the underlying assets transfers to the consolidated companies at the end of the lease term, or if the cost of the right-of-use assets reflects the fact that the consolidated companies will exercise the purchase option, the depreciation is calculated using the estimated useful lives of the underlying assets.

The right-of-use assets are also subject to impairment, and are explained under Note 2-23 concerning the accounting policy on the impairment of non-financial assets.

2) Lease liabilities

On the date of commencement of the lease, the consolidated companies measure the lease liability at the present value of the lease payments to be paid over the lease term. Lease payments consist of fixed lease payments (including the substantive fixed lease payments minus the lease incentives to be received), variable lease payments that depend on an index or rate, and the amount expected to be paid under the residual value guarantee. Lease payments also include the exercise price of the purchase option if it is reasonably certain that the consolidated companies will exercise the purchase option and the amount they would pay to terminate the lease if the lease term reflects the consolidated companies' exercise of the termination option.

Variable lease payments other than those that depend on an index or rate are recognized as expenses for the period in which the event or condition giving rise to the lease payment occurs (unless it is incurred to produce inventories).

When calculating the present value of lease payments, the consolidated companies use the incremental borrowing rate on the date of commencement of the lease since the implied interest rate of the lease cannot be calculated with ease. After the date of commencement of the lease, the amount of the lease liability increases by reflecting the interest and decreases by reflecting the lease payments made. Furthermore, the book amount of the lease liability is remeasured if there is any change in the lease term, change in the lease payments (for example, changes in future lease payments resulting from changes in the index or rate used to calculate the lease payments) or change in the assessment of options to purchase the underlying assets.

3) Short-term leases and the underlying asset leases of small amount

The consolidated companies apply the provisions on recognition exemption for short-term leases of machinery and equipment (that is, such leases operate on a lease term of 12 months or less from the date of commencement and do not include a purchase option). In addition, the consolidated companies apply the provisions on recognition exemption for leases of assets of small amounts for the leases of office supplies that are considered assets of small amounts. Lease payments for the short-term leases and leases of assets of small amounts are recognized as expenses on a straight-line basis over the lease term.

(2) Accounting as lessor

The consolidated companies classify the leases which do not substantially transfer all of the risks and rewards of ownership of the underlying asset as operating leases. The revenue from lease payments is recognized on a straight-line basis over the lease term and is included in the sales in the income statement depending on the nature of the business. The direct cost of establishing an operating lease is added to the book amount of the underlying assets and recognized as an expense over the lease term on the same basis as the lease payment income. Conditional rent payments are recognized as sales when the rent payment is received.

2-20 Classification of liquidity and illiquidity

The consolidated companies present assets and liabilities separately in the statement of financial position as current and non-current. Assets are classified as current assets where any of the following apply.

- Where the asset is expected to be realized within the normal operating cycle, or intended to be sold or consumed within the normal operating cycle

- Where the asset is primarily held for trading purposes
- Where the asset is expected to be realized within 12 months after the reporting period
- Where, as cash or cash equivalents, the period of restriction on the use of the asset for exchange or debt repayment purposes is not more than 12 months after the reporting period

Any and all other assets are classified as the non-current assets.

Liabilities are classified as current liabilities where any of the following apply.

- Where it is expected that payment will be made within the normal operating cycle
- Where the asset is primarily held for trading purposes
- Where the payment is due within 12 months after the reporting period
- Where the unconditional right to defer the settlement of liabilities for more than 12 months after the reporting period is not granted

Any and all other liabilities are classified as the non-current liabilities. The deferred income tax assets (liabilities) are classified as the non-current assets (liabilities).

2-21 Cash dividend

The consolidated companies recognize liabilities when the distribution is authorized to pay the dividends out and the company no longer has discretion. Distribution for the shareholders requires approval by the shareholders. The corresponding amount is reflected directly in equity.

2-22 Intangible assets

The consolidated companies appropriate the intangible assets acquired individually at acquisition cost, and appropriate the intangible assets acquired in a business combination at fair value at the point of purchase, and following the initial acquisition, directly deduct the accumulated amortization and accumulated impairment losses and present them accordingly. Meanwhile, the internally created intangible assets, excluding the development costs, are reflected in profit or loss as expense items when created.

Intangible assets are classified into those with finite useful lives and those with indefinite useful lives.

Intangible assets with finite useful lives are amortized over their useful lives, and the impairment is reviewed if there are indications of impairment. Furthermore, the adequacy of the useful lives and amortization method is reviewed at the end of each reporting period, and if any changes are needed due to changes in the expected period of use or changes in the consumption patterns of economic benefits, they are accounted for through changes in estimates. Amortization of intangible assets is reflected in the profit or loss as an expense item consistent with the function of the relevant intangible asset

Meanwhile, the intangible assets with indefinite useful lives are not amortized, yet are each tested for impairment individually or included for the cash-generating units each year. Furthermore, each year, whether it is appropriate to apply an indefinite useful life for the intangible asset is reviewed, and if not appropriate, it is changed to a finite useful life in a forward-looking manner.

Upon the derecognition of intangible assets, the consolidated companies reflect any profit or loss arising from the differences between the net sales amount and the book amount of the intangible assets when derecognized.

- Research and development (R&D) expenses

The consolidated companies recognize research expenses as an expense when incurred. However, for development costs related to individual projects, the Company capitalizes the costs as intangible assets only when: i) technical feasibility to complete the asset for use or sale can be demonstrated, ii) there is the intention and ability to complete the asset and use or sell it, iii) sufficient resources are available to complete the development, iv) it is demonstrated how the intangible asset will generate future economic benefits, and v) Expenditures related to intangible assets incurred during the development stage are recognized as intangible assets only if they can be reliably measured.

The new drug development project of the consolidated companies proceeds through stages such as preclinical studies, phase 1 clinical trials, phase 2 clinical trials, phase 3 clinical trials, government approval application, government approval completion, and commencement of product sales for each candidate substance for the new drug.

Typically, the consolidated companies recognize expenditures incurred after a project has entered the phase 3 clinical trial stage as intangible assets, and consider expenditures incurred in earlier stages as R&D expenses, treating them as expenses of the current period.

Meanwhile, the development costs recognized as assets are directly deducted from the acquisition cost by deducting the accumulated amortization and the accumulated impairment losses through applying the cost model. They are also amortized over the expected period of continuity for the economic benefits from the time development is completed and available for use and are appropriated as the cost of sales. The consolidated companies conduct an annual impairment test for the development costs recognized as assets during the development period.

- Patents and licenses

Patents are licensed by the government for a period of 10 or 20 years, with the right to renew granted at the end of the term.

The amortization expenses for the consolidated companies' intangible assets are appropriated using the straight-line method in line with the economic useful lives of each asset below.

Classification	Useful life
Industrial property rights	5 - 10 years
Software	5 years
Development costs	10 years
Memberships	Not subject to amortization

2-23 Impairment of non-financial assets

At the end of each reporting period, the consolidated companies review whether there are any signs of the impairment of assets. Where such signs exist or when an annual impairment test is required for the assets, the consolidated companies estimate the assets' recoverable amount. The recoverable amount of the assets is net fair value of the assets or the cash-generating unit or the value in use, whichever is the larger, and it is determined for each individual asset; however, if the cash inflow of the individual asset is not generated almost independently of the cash inflow of the other assets or groups of assets, it is determined by the cash-generating unit to which the individual asset belongs. If the asset's book value exceeds its recoverable amount, the asset is deemed to be impaired and its book value is reduced to its recoverable amount.

The value in use is determined by discounting the estimated future cash flows of the asset at a pre-tax discount rate reflective of the market's assessment of the time value of money and the risk of the asset. As for the net fair value, a most recent transaction price is considered.

If no such transaction is identified, it is determined using an appropriate valuation model. Valuation multiples, market prices of listed stocks, or other fair value indicators are used for such calculations.

The consolidated companies calculate the impairment amount based on the specific financial budgets and forecasts prepared for each cash-generating unit for which the individual assets are allocated. The financial budgeting and forecasting generally cover a period of 5 years, while for longer periods, the long-term growth rates are calculated and applied for the period over 5 years.

Impairment loss is reflected in the profit or loss as an expense item consistent with the function of the impaired asset. However, for assets to which the revaluation model is applied, if there is a previously recognized revaluation surplus, it is offset against the revaluation surplus up to the amount of the previous revaluation.

For assets other than goodwill, at the end of each reporting period, an assessment is made as to whether there are any signs that an impairment loss on any previously recognized assets is no longer present or has decreased, and if such signs exist, the recoverable amount is estimated. The impairment loss on an asset, other than the goodwill recognized in the past, increases the book amount to the recoverable amount for the amortized balance of the asset's book amount if no recognition of the impairment loss is made; however, this is limited to cases in which there is any change in the estimates used to determine the recoverable amount of the relevant asset after the point of recognition of the immediately previous impairment loss. However, for the assets for which the reevaluation model is applied, the relevant reversal amount is accounted for an increase in the reevaluation surplus.

For the following assets, each criterion is additionally applied for the asset impairment testing.

(1) Goodwill

The consolidated companies conduct an impairment test for goodwill on December 31 of each year and whenever any signs of impairment are present. The impairment test for goodwill is carried out by estimating the recoverable amount of each cash-generating unit or group of cash-generating units related to the goodwill. If the recoverable amount of the cash-generating unit should be less than the book amount, the impairment loss is recognized, and the impairment loss recognized for goodwill is not reversed thereafter.

(2) Other intangible assets

As for the other intangible assets with indefinite useful lives, the consolidated companies conduct the impairment testing for each individual asset or cash-generating unit on December 31 of each year and whenever any signs of impairment are present.

The consolidated companies assess the areas where climate-related issues may have a significant impact, such as the introduction of legislation to regulate greenhouse gas emissions which may increase the manufacturing costs. Such issues related to climate change are included as the key assumptions if they have a material impact on the measurement of the recoverable amount.

2-24 Provisioning liabilities

The consolidated companies recognize a provision when, as a result of a past event, there is a present obligation (either a legal or constructive obligation) It is probable that an outflow of economic benefits will be required to settle the obligation, and the amount required to settle the obligation can be reliably estimated. Where it is expected that a third party will pay for some or all of the expenses needed to settle the provisioning liabilities, provided that it is almost a certainty that the consolidated companies will receive reimbursement if the consolidated companies fulfill the obligations, they are accounted for as separate assets. The expenses recognized in the consolidated statements of comprehensive income in connection with the provisioning liabilities are presented by offsetting the amount recognized in connection with the reimbursement by a third party.

Where the time value effect of money is material, the provisioning liabilities are discounted at the current pre-tax interest rate reflective of the risk specific to the liabilities. Where the provisioning liabilities are assessed at the present value, any increase in the book amount over time is recognized as a financial cost.

1) Onerous contracts

If the consolidated companies have executed onerous contracts, the related present obligations are recognized and measured as provisioning liabilities. Before recognizing the provisioning liabilities for the onerous contracts, the impairment loss on the assets used to perform the onerous contracts is recognized first.

An onerous contract is a contract in which the unavoidable costs required to perform the contractual obligations exceed the economic benefits expected to be received therefrom. Avoidable costs are the lower of the costs required to fulfill the contract, which represent the minimum unavoidable costs in the contract, and the compensation or penalties that would be payable if the contract is not fulfilled.

2) Restructuring provision

Restructuring provisions are recognized when the general recognition criteria for provisions are met. In addition, consolidated companies are required to follow a detailed and formal plan that includes specific estimates regarding the business or parts of the business subject to restructuring, the locations and number of employees affected, the expected expenditures, and the timing of execution. The implementation of the restructuring plan has either commenced, or the relevant parties have a legitimate expectation that the restructuring will be carried out.

2-25 Greenhouse gas emission rights and emission liabilities

The consolidated companies received free emission rights as a result of the greenhouse gas emission trading system. These emission rights are paid for each year, and the same number of emission rights must be used in response to the actual emissions. The consolidated companies account for the emission rights received using the net debt approach, and accordingly, they are recognized as the provisioning liabilities if and only if the actual amount of carbon emitted exceeds the given emission rights, and the emission costs are recognized as the operating costs. Where the emission rights are purchased from a third party, they are appropriated at acquisition cost, and thereafter, remeasured at fair value in line with the emission liabilities, as they are considered as the right of repayment, and the changes in fair value are appropriated in the consolidated statements of comprehensive income.

2-26 Treasury stocks

The consolidated companies account for the treasury stocks as a deduction from the equity. Profit or loss on the acquisition, sale, issuance, or cancellation of treasury stocks is not reflected in the consolidated statements of comprehensive income, and the differences between the book amount and the consideration for disposal are accounted for as the other capital surplus.

2-27 Share-based payment transaction

The consolidated companies operate a system that subsidizes stock options to employees for their services (stock-settled share-based payment transactions).

The share-settled, share-based payment costs are measured at fair value of the date of granting using an appropriate valuation model.

The share-based payment costs are recognized as employee benefits over the period in which the service provision related terms and conditions (or performance condition) are satisfied (hereinafter, 'vesting period'), and the corresponding increase in equity is recognized. At the end of each reporting period, the measurement of the cumulative cost of compensation reflects an estimate of whether the vesting period is completed and the final number of equity instruments to be granted. The changes in the cumulative compensation cost at the beginning and end of the reporting period are adjusted in the current consolidated statement of comprehensive income.

The service provision terms and conditions and the non-market conditions are not considered if and when estimating the fair value of share options as of the date of grant, yet are reflected in the estimation of the number of equity instruments which ultimately are vested, and the market conditions are reflected when measuring the fair value as of the date of granting. The other conditions granted for the share-based payments (unless there are relevant service conditions) are considered to be non-vesting conditions. Non-vesting conditions are reflected when the fair value of share-based payment costs is measured. If there are no service provision terms and conditions (or performance conditions), they are recognized as expenses immediately thereby.

No expense is recognized for share-based payments which ultimately are not vested. However, the stock-settled transactions with market conditions or non-vesting conditions are accounted for as vested regardless of whether the market conditions or non-vesting conditions are satisfied if and where all other performance and service conditions are satisfied.

Changes in the conditions of the share-settled share-based payment are recognized at the minimum cost which would have been recognized if and where the conditions were not changed, except where the equity instruments are not vested as the specified vesting conditions are not met. An additional effect of the change is recognized when it increases the total fair value of the share-based payment agreement or changes the terms to the benefit of employees. When the share-settled compensation is canceled, it is deemed as vested on the date of cancellation and the unrecognized compensation costs are recognized immediately thereby. The dilutive effect of the issued options is reflected as the diluted shares when calculating the diluted earnings per share.

2-28 Non-current assets held for sale and discontinued operations

The consolidated companies classify the non-current assets (or groups of assets for disposal) as held for sale if their book amount will be recovered primarily through the sale transaction or distribution rather than the continued use. The non-current assets and disposal groups classified as held for sale are measured at the lesser of the fair value and book amount, after the deduction of the costs to sell. The costs to sell are the incremental costs (excluding the financial cost and the income tax expenses) directly reverted to the disposal of assets (or disposal group).

The condition for classification as held for sale is deemed to be satisfied if and when the sale is highly probable and the non-current asset (or disposal group) is available for immediate sale in its present condition. The measures required to complete the sale ought to demonstrate the fact that the sale is unlikely to be significantly altered or withdrawn, and the sale must be expected to be completed within 1 year of the asset being classified as held for sale.

Tangible and intangible assets classified as held for sale are not depreciated or amortized. Assets and liabilities classified as held for sale or distribution are presented as separate current items in the statement of financial position.

The consolidated companies exclude the after-tax income from discontinued operations from the results of continuing operations, and present it as a single amount in the statement of income.

2-29 Subsequent events

If the consolidated companies obtain information about conditions that existed at the end of the reporting period after the reporting period but before the approval date of the financial statements, they assess whether this information affects the amounts recognized in the financial statements. If the information indicates an adjusting event, the consolidated companies revise the recognized amounts accordingly and update related disclosures to reflect the new information. For subsequent events that do not require adjustment, the consolidated company does not change the amounts recognized in the financial statements but discloses the nature of the event and its estimated financial impact. If such estimates cannot be changed, an explanation is provided in the disclosures.

2-30 Earnings per share (EPS)

Basic earnings per share is calculated by dividing the net income attributable to the consolidated company's common shareholders by the weighted average number of common shares outstanding. Diluted earnings per share is calculated by dividing the net income attributable to the consolidated company's common shareholders, after adjusting for preferred stock-related costs, by the sum of the weighted average number of common shares outstanding and the weighted average number of potential common shares that would be issued upon the conversion of dilutive potential common shares.

2-31 Reclassification of accounts in prior period financial statements

The consolidated company has reclassified certain accounts from the prior period financial statements to align with the account classifications in the current period financial statements, in order to facilitate comparison. These reclassifications do not affect the previously reported net income or net assets.

3. Significant Judgments, Estimates, and Assumptions

The management of the consolidated companies must make judgments, estimates, and assumptions when preparing the consolidated financial statements that may affect the reported amounts of revenues, expenses, assets, liabilities, and the disclosure of contingent liabilities as of the end of the reporting period.

However, the uncertainties of such estimates and assumptions could cause material adjustments to the book amounts of the assets and liabilities that will be affected in the future.

3-1 Important accounting judgments

In the process of applying the consolidated companies' accounting policies, the senior management's judgments which have had the most significant impact on the amounts recognized in the consolidated financial statements are as follows.

(1) Calculation of the lease term of contracts with options for extension and termination

The consolidated companies calculate the lease term inclusive of the non-cancellable period of the lease and the term of the option if and when it is reasonably certain to exercise the option to extend the lease, or the period over which the option to terminate the lease is reasonably certain not to be exercised.

The consolidated companies have the lease agreements which include the extension and termination options. The consolidated companies apply judgments when assessing whether it is reasonably certain to exercise the option to extend or terminate the lease. That is, they consider any and all relevant facts and circumstances which give rise to an economic incentive to exercise an extension option or not to exercise a termination option. After the date of commencement, the consolidated companies reassess the lease term if any significant events or changes in circumstances under the consolidated companies' control affect the ability to exercise an extension or not to exercise an option to terminate.

The consolidated companies include extended periods as part of the lease term for the leases of equipment and machinery with short non-cancellable periods. The consolidated companies generally exercise the option to extend the lease, as there is a significant negative impact on the production if replacement assets are not readily available. The extended periods for the long non-cancellable leases of equipment and machinery are not included as part of the lease term since it is not significantly certain that the extension option will be exercised. Furthermore, the consolidated companies generally lease vehicles for 5 years or less and do not exercise the option to extend the lease, and thus, the option to extend the vehicle lease is not included as part of the lease term. Moreover, the period covered by the termination option is included as part of the lease term if and only if it is reasonably certain that it will not be exercised.

(2) Classification of real estate leases

The consolidated companies have entered into commercial real estate lease agreements for their investment property portfolio. The consolidated companies have determined that, based on an assessment of the lease terms, such as the lease term, the present value of lease payments that do not represent a substantial portion of the economic useful life of the commercial real estate or the fair value of the property, they retain most of the risks and rewards of ownership of the property. Therefore, these contracts are accounted for as operating leases.

3-2 Accounting estimates and changes

The other major sources of uncertainties for material assumptions and estimates on the future as of the end of the reporting period that have a significant risk of causing a material adjustment to the book amounts of assets and liabilities in the next fiscal year are as follows. Assumptions and estimates are based on the variables available at the time the consolidated financial statements are prepared. The current circumstances and assumptions about the future may change given changes in the market or circumstances beyond the control of the consolidated companies. When such changes occur, they are reflected in the assumptions.

Meanwhile, the Group considers climate-related risks in its estimates and assumptions due to climate change and the future global greenhouse gas reduction implementation system. Climate-related risks increase the uncertainty of estimates and assumptions considered in various items of the consolidated financial statements. Although they do not currently have a significant impact on the measurements, the Group is carefully monitoring climate-related changes and developments, such as new climate-related laws.

(1) Impairment of non-financial assets

The consolidated companies assess all non-financial assets for any signs of impairment at the end of each reporting period. Goodwill and intangible assets with indefinite useful lives are tested for impairment each year or when there are signs of impairment, and the other non-financial assets are tested for impairment when there are signs that their book amount will not be recoverable. To calculate the value in use, the senior management must estimate the expected future cash flows from the asset or the cash-generating unit, and select an appropriate discount rate to calculate the present value of the expected future cash flows.

(2) Retirement benefit plan

The present value of the defined benefit liability is determined based on the actuarial valuation method. To apply the actuarial valuation method, it is necessary to establish various assumptions, and the establishment of such assumptions includes the discount rate, rate of future wage increase, and the mortality rate. Given the complexity of the valuation method and the underlying assumptions and the long-term nature of the valuation method, the defined benefit liability fluctuates sensitively according to these assumptions. All assumptions are reviewed at the end of each reporting period.

(3) Provisions for expected loss on trade and other receivables and contract assets

The consolidated companies use the provision setting table to calculate the expected credit loss (ECL) for trade and other receivables and contract assets. The provision setting rate is based on the number of delinquent days in a bundle for different customer segments with similar loss patterns (i.e., geographic location, product type, customer type and credit rating, collateral or transactional credit insurance).

(4) Development costs

The consolidated companies capitalize development costs as assets. The development costs recognized as assets of the consolidated companies are based on the senior management's judgment that there is technical and economic feasibility, which means that a certain level of target selected according to project management techniques has been reached. The development costs subject to assetization were calculated based on senior management's assumptions about the expected future cash flow, discount rate, and period of economic benefits from the respective asset. As of the end of the period, based on the best estimate, the carrying amount of development costs recognized as assets is 11,027 million KRW (the end of the previous period : 8,281 million KRW).

(5) Deferred income tax assets

Where it is highly likely that future taxable income for which the tax loss can be used will occur, the deferred income tax assets are recognized for the unused tax loss within the scope. The consolidated companies' senior management makes major judgments to determine the amount of deferred income tax assets that can be recognized based on the future tax strategies and the timing and extent of tax income. The relevant details are provided under Note 31.

(6) Fair value of financial instruments

The fair value of financial instruments without an active market was calculated by applying valuation techniques including the discounted cash flow method. When the observable market information is not available for the input factors used for such valuation techniques, the determination of fair value requires a considerable estimation. Such judgments include the consideration of input variables such as liquidity risk, credit risk and volatility. Changes in such factors may affect the fair value of financial instruments.

(7) Share-based compensation

The consolidated companies measure the compensation cost of stock-settled share-based payment transactions based on the fair value of the equity instruments at the grant date.

The fair value is estimated using an appropriate valuation model, considering the terms of the equity instrument grant. Furthermore, it is necessary to determine the most appropriate pricing factors for the valuation model, including the expected lifetime of stock options, volatility, and dividend rate, and to establish assumptions for these factors. The assumptions and valuation models used to estimate the fair value of share-based payment transactions are provided under Note 26-3.

(8) Calculation of the incremental borrowing rate of a lease

The consolidated companies use the incremental borrowing rate to measure the lease liability, as the implicit interest rate of the lease cannot be easily determined. The incremental borrowing rate is the interest rate which the consolidated companies would be required to pay if the consolidated companies borrow the funds needed to acquire an asset of similar value to the right-to-use asset with similar collateral over a similar period in a similar economic environment. Accordingly, the incremental borrowing rate reflects the matters which the consolidated companies 'must pay' for which measurement is required if and when there is no observable rate, or when it has to be adjusted to reflect the terms of the lease. The consolidated companies must measure the incremental borrowing rate using observable input variables where possible, and prepare company-specific estimates.

(9) Inventory valuation allowance

The consolidated companies must estimate the conversion cost and other costs incurred in bringing the inventory to its present location and condition for the net realizable value assessment of the inventories. The balance of the inventory valuation allowance may change depending on the estimation of operational cost and cost of goods sold.

(10) Provisioning liabilities

If there exist legal obligations and constructive obligations as a result of past events as of the end of the reporting period, the consolidated companies must estimate the likelihood and amount of resource outflow required to fulfill such obligations. For this estimation, the consolidated companies take all available evidence into consideration, and significant estimation and judgment are required.

(11) Useful life and residual value of tangible assets

The consolidated company reviews the estimated residual value and expected useful life of tangible assets at least annually. In particular, when evaluating the expected useful life and estimated residual value, the impact of health, safety, and environmental regulations is considered. Additionally, climate-related factors, including physical risks and transition risks, are taken into consideration.

4. Standards Announced or Effective upon Revision or Enactment

4-1 Application of issued or amended standards

The consolidated companies applied the standards and revisions for the first time for the first fiscal year beginning on January 1, 2024. The consolidated companies have not applied early the standards, interpretations or revisions which have been announced yet have not been enforced.

(1) Amendment to Corporate Accounting Standard No. 1116 'Leases' - Lease liabilities arising from sales-type leases

The amendments to Corporate Accounting Standard No. 1116 'Leases' clarify the requirement that the seller-lessee should not recognize any gain or loss on the right-of-use asset that continues to be held by the seller-lessee when measuring lease liabilities arising from a sales-type lease transaction.

The application of these amendments does not have a significant impact on the consolidated company's financial statements.

(2) Revision to Corporate Accounting Standard No. 1001 'Presentation of Financial Statements' - Classification of Liabilities as Current/Non-current Liabilities

The amendments to Corporate Accounting Standard No. 1001 clarify the following requirements regarding the classification of liabilities as current and non-current:

- The meaning of the right to defer settlement
- The right to defer settlement must exist as of the reporting date.

- The classification of liquidity is not affected by the possibility of exercising the right to defer settlement.
- The conditions under which a company can settle a liability by transferring its own equity instruments do not affect the classification of liquidity if the option is classified as an equity instrument and the option is recognized separately from the liability as a component of a compound financial instrument.

Additionally, if a company classifies a liability arising from a borrowing agreement as a non-current liability, and the company's right to defer settlement depends on whether the covenant is complied with within 12 months after the reporting period, this should be disclosed.

The application of these amendments does not have a significant impact on the consolidated company's consolidated financial statements.

(3) Revision to Corporate Accounting Standard No. 1007 'Statement of Cash Flows' and Corporate Accounting Standard No. 1107 'Financial Instruments: Amendment to 'Financial Instruments: Disclosures' - Supplier Financing Agreements, Corporate Accounting Standard No. 1007 'Statement of Cash Flows,' and No. 1107 'Financial Instruments: Disclosures' clarifies the characteristics of supplier financing agreements and requires additional disclosures related to such agreements. The disclosure requirements of this amendment are intended to help financial statement users understand the impact of supplier financing agreements on the company's liabilities, cash flows, and exposure to liquidity risk.

In accordance with this amendment, the con company has provided additional disclosures regarding supplier financing agreements, and please refer to Note 16.

4-2 Accounting standards announced but not yet enforced

The details of the enacted or revised standards and interpretations which have been enacted or announced as of the date of approval for issuance of the financial statements of the consolidated companies, yet which have not been applied early since the date of enforcement has not yet arrived, are as follows.

(1) Amendment to Corporate Accounting Standard No. 1021 'Effects of Changes in Foreign Exchange Rates' - Lack of Exchangeability
Corporate Accounting Standard No. 1021 'Effects of Changes in Foreign Exchange Rates' was amended to clarify how a company evaluates exchangeability with other currencies and how the spot exchange rate is determined when there is a lack of exchangeability. Additionally, this amendment requires the disclosure of information that enables financial statement users to understand how a currency with a lack of exchangeability affects, or is expected to affect, the company's financial performance, financial position, and cash flows.

These amendments apply from the fiscal year beginning on or after January 1, 2025. Early adoption is permitted, and this fact must be disclosed. When applying this amendment, the con company will not restate comparative information.

These amendments are not expected to have a significant impact on the financial statements.

(2) Corporate Accounting Standard No. 1109 'Financial Instruments' and No. 1107 'Financial Instruments: Amendment to 'Financial Instruments: Disclosures' - Classification and Measurement of Financial Instruments

Corporate Accounting Standard No. 1109 'Financial Instruments' and No. 1107 'Financial Instruments: Amendment to 'Financial Instruments: Disclosures' - The amendments to the classification and measurement of financial instruments include the following:

- The amendment clarifies the accounting policy choice for removing financial liabilities that are settled on the settlement date and those settled using electronic payment systems, provided certain conditions are met before the settlement date.
- Additional guidance on how to assess the contractual cash flows of financial assets with ESG and similar characteristics
- Clarification of what constitutes a non-recourse feature and the characteristics of financial instruments linked to contracts.
- Introduction of disclosure requirements for financial instruments with contingent features and additional disclosure requirements for equity instruments measured

These amendments apply from the fiscal year beginning on or after January 1, 2026. Early application is permitted, and the amendments related to the classification of financial assets and related disclosure requirements may be applied early. The co company does not plan to early adopt the amendments at this time.

(3) K-IFRS Annual Improvements Volume 11

The K-IFRS Annual Improvements Volume 11 was issued to enhance the consistency of requirements across standards, clarify ambiguous areas, and improve understandability.

- Corporate Accounting Standard No. 1101 'First-time Adoption of Korean International Financial Reporting Standards' – A Subsidiary that Application of hedge accounting upon first-time adoption of K-IFRS
- There are no similar limited revisions to Corporate Accounting Standard No. 1107 'Financial Instruments: Disclosures': Disposal gains and losses, practical application guidelines
- There are no similar limited revisions to Corporate Accounting Standard No. 1109 'Financial Instruments: The accounting treatment for the removal of lease liabilities and the definition of transaction price
- Corporate Accounting Standard No. 1110 'Consolidated Financial Statements': Determination of De Facto Agent
- Corporate Accounting Standard No. 1007 'Statement of Cash Flows': Cost method

These amendments apply from the fiscal year beginning on or after January 1, 2026. Early adoption is permitted, and this fact must be disclosed. These amendments are not expected to have a significant impact on the financial statements.

5. Financial Instruments

Disclosure by category of financial assets

Current period

(Unit: KRW one thousand)

		Financial assets measured at fair value through profit or loss	Financial assets measured at amortized cost, Category	Financial assets recognized through other comprehensive income	Financial assets, Total by category
Total current financial assets		611,864,440	610,637,729	0	1,222,502,169
Total current financial assets	Short-term financial instruments	611,864,245	239,711,067	0	851,575,312
	Trade and other receivables	0	368,470,892	0	368,470,892
	Current derivative financial assets	195	0	0	195
	Other current financial assets	0	2,455,770	0	2,455,770
Total non-current financial assets		75,213,458	3,371,762	19,406,807	97,992,027
Total non-current financial assets	Long-term financial products	0	27,500	0	27,500
	Long-term investment assets	66,428,462	0	19,406,807	85,835,269
	Trade and other receivables	0	957,290	0	957,290
	Non-current derivative assets	8,784,996	0	0	8,784,996
	Other non-current financial assets	0	2,386,972	0	2,386,972
Total financial assets		687,077,898	614,009,491	19,406,807	1,320,494,196

Previous period

(Unit: KRW one thousand)

		Financial assets measured at fair value through profit or loss	Financial assets measured at amortized cost, Category	Financial assets measured at fair value through other comprehensive income	Financial assets, Total by category
Total current financial assets		872,354,498	512,646,428	0	1,385,000,926
Total current financial assets	Short-term financial instruments	871,919,247	332,502,627	0	1,204,421,874
	Trade and other receivables	0	179,998,132	0	179,998,132
	Current derivative financial assets	435,251	0	0	435,251
	Other current financial assets	0	145,669	0	145,669
Total non-current financial assets		63,592,750	7,885,432	44,229,394	115,707,576
Total non-current financial assets	Long-term financial products	0	27,500	0	27,500
	Long-term investment assets	58,536,974	0	44,229,394	102,766,368

	Trade and other receivables	0	788,676	0	788,676
	Non-current derivative assets	5,055,776	0	0	5,055,776
	Other non-current financial assets	0	7,069,256	0	7,069,256
Total financial assets		935,947,248	520,531,860	44,229,394	1,500,708,502

(Note 1) Short-term financial instruments: It includes demand deposit financial instruments deposited with financial institutions.

(Note 2) Other financial assets: It refers to short-term and long-term deposits.

Disclosure by category of financial liabilities

Current period

(Unit: KRW one thousand)

		Financial liabilities at fair value through profit or loss	Financial assets measured at amortized cost, Category	Financial liabilities, Total by category
Total current financial liabilities		5,620,854	748,734,458	754,355,312
Total current financial liabilities	Trade payables and other current liabilities	0	307,560,156	307,560,156
	Current borrowings (including bonds)	0	303,095,328	303,095,328
	Current portion of non-current borrowings (including bonds)	0	127,397,424	127,397,424
	Current derivative financial liabilities	5,620,854	0	5,620,854
	Current lease liabilities	0	7,804,298	7,804,298
	Other current financial liabilities	0	2,877,252	2,877,252
Total non-current financial liabilities		0	1,219,904,927	1,219,904,927
Total non-current financial liabilities	Non-current portion of bonds payable	0	219,404,969	219,404,969
	Financial Institution Borrowings (excluding bonds) Liquidity substitution, increase (decrease) in liabilities arising from	0	983,815,255	983,815,255
	Part			
	Non-current lease liabilities	0	16,684,703	16,684,703
Total financial liabilities		5,620,854	1,968,639,385	1,974,260,239

Previous period

(Unit: KRW one thousand)

		Financial liabilities at fair value through profit or loss	Financial assets measured at amortized cost, Category	Financial liabilities, Total by category
Total current financial liabilities		110,856	715,769,806	715,880,662
Total current financial liabilities	Trade payables and other current liabilities	0	246,663,913	246,663,913
	Current borrowings (including bonds)	0	263,707,890	263,707,890
	Current portion of non-current borrowings (including bonds)	0	192,405,128	192,405,128
	Current derivative financial liabilities	110,856	0	110,856
	Current lease liabilities	0	7,677,175	7,677,175
	Other current financial liabilities	0	5,315,700	5,315,700
Total non-current financial liabilities		0	646,098,322	646,098,322
Total non-current financial liabilities	Non-current portion of bonds payable	0	164,557,091	164,557,091
	Financial Institution Borrowings (excluding bonds)	0	472,518,337	472,518,337
	Liquidity substitution, increase (decrease) in liabilities arising from Part			
	Non-current lease liabilities	0	9,022,894	9,022,894
Total financial liabilities		110,856	1,361,868,128	1,361,978,984

(Note 1) Lease liabilities: Lease liabilities correspond to the liabilities recognized in accordance with Corporate Accounting Standard No. 1116.

(Note 2) Included are the deposits received and the dividends payable.

Profit and loss by the category of financial instruments

Current period

(Unit: KRW one thousand)

	Assets and liabilities					Total assets and liabilities
	Financial assets, Category			Financial liabilities, Category		
	Financial assets measured at fair value through profit or loss	Financial assets measured at fair value through other comprehensive income	Financial assets measured at amortized cost, Category	Derivative liabilities of hedging accounting	Financial assets measured at amortized cost, Category	
Interest income (expense)	0	0	17,938,686		(41,439,574)	(23,500,888)
Profit or loss on the valuation of financial instruments measured at fair value through profit or loss Gains and losses	10,799,357	0	0		0	10,799,357
Disposal gains and losses of financial assets measured at fair value through profit or loss	14,674,527	0	0		0	14,674,527
Dividend income	1,190,000	0	0		0	1,190,000
Profit or loss on foreign currency translation	0	0	8,605,964		(4,322,689)	4,283,275

Gains on foreign currency transactions	0	0	13,306,967		(5,501,533)	7,805,434
Profit or loss on the valuation of derivatives	(1,891,439)	0	0		0	(1,891,439)
Profit or loss on the transaction of derivatives	(7,340,934)	0	0		0	(7,340,934)
Bad debt expenses (reversal of allowance for bad debts)	0	0	779,339		0	779,339
Reversal of allowance for other bad debts	0	0	405,814		0	405,814
Cash flow hedging gains and losses (after-tax other comprehensive income)						0
After-tax other comprehensive income, investments in equity instruments	0	61,379,515	0		0	61,379,515
Profit and loss by the category of financial instruments	17,431,511	61,379,515	41,036,770		(51,263,796)	68,584,000

Previous period

(Unit: KRW one thousand)

	Assets and liabilities					Total assets and liabilities
	Financial assets, Category			Financial liabilities, Category		
	Financial assets measured at fair value through profit or loss	Financial assets recognized through other comprehensive income	Financial assets measured at amortized cost, Category	Derivative liabilities of hedging accounting	Financial assets measured at amortized cost, Category	
Interest income (expense)	0	0	19,430,230	0	(32,047,152)	(12,616,922)
Profit or loss on the valuation of financial instruments measured at fair value through profit or loss Gains and losses	6,746,381	0	0	0	0	6,746,381
Profit or loss-Financial instruments measured at fair value	10,285,019	0	0	0	0	10,285,019
Dividend income	1,190,000	0	0	0	0	1,190,000
Profit or loss on foreign currency translation	0	0	4,554,552	0	(287,699)	4,266,853
Gains on foreign currency transactions	0	0	9,915,992	0	1,340,366	11,256,358
Profit or loss on the valuation of derivatives	4,142,559	0	0	0	0	4,142,559
Profit or loss on the transaction of derivatives	(22,586,012)	0	0	1,124,659	0	(21,461,353)
Bad debt expenses (reversal of allowance for bad debts)	0	0	(551,125)	0	0	(551,125)
Reversal of allowance for other bad debts	0	0	397,316	0	0	397,316
Cash flow hedging gains and losses (after-tax other comprehensive income)	0	0	0	(265,468)	0	(265,468)
After-tax other comprehensive income, investments in equity instruments	0	(54,727,477)	0	0	0	(54,727,477)
Profit and loss by the category of financial instruments	(222,053)	(54,727,477)	33,746,965	859,191	(30,994,485)	(51,337,859)

(Note 1) After-tax other comprehensive income, investments in equity instruments: This amount is obtained from deducting the corporate tax.

5. Financial Instruments – Cash and Cash Equivalents

Disclosure of cash and cash equivalents

Current period

(Unit: KRW one thousand)

	Disclosure amount
Cash on hand	8,616
Deposit balance	36,149,608
Cash and cash equivalents	506,143,857
Total cash	542,302,081

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Cash on hand	6,770
Deposit balance	18,593,172
Cash and cash equivalents	377,412,268
Total cash	396,012,210

5. Financial Instruments – Restricted Deposits

Restricted financial assets

Current period

(Unit: KRW one thousand)

	Short-term financial assets 1	Short-term financial assets 2	Long-term financial assets	Financial assets, Total classification
Restricted financial assets	1,600,000	6,168,660	27,500	7,796,160
Description of restricted financial assets	Provision of collateral for treasury share association loans	Establishment of pledge rights	Security deposit for opening current deposit account	

Previous period

(Unit: KRW one thousand)

	Short-term financial assets 1	Short-term financial assets 2	Long-term financial assets	Financial assets, Total classification
Restricted financial assets	5,300,000	55,022,832	27,500	60,350,332
Description of restricted financial assets	Provision of collateral for treasury share association loans	Establishment of pledge rights	Security deposit for opening current deposit account	

6. Trade and Other Receivables

Disclosure of trade receivables and other receivables

Current period

(Unit: KRW one thousand)

		Total book value	Accumulated impairment losses	Total book value
Trade and other receivables		374,272,477	(5,801,585)	368,470,892
Trade receivables and other current receivables	Current trade receivables	260,823,674	(3,273,250)	257,550,424
	Short-term receivables, net amount	99,081,873	(88,335)	98,993,538
	Short-term loans, net amount	2,440,000	(2,440,000)	0
	Short-term unearned revenue, net amount	11,926,930	0	11,926,930
Trade receivables and other non-current receivables		957,290	0	957,290
Trade receivables and other non-current receivables	Long-term loans, net amount	957,290	0	957,290
Trade and Other Receivables		375,229,767	(5,801,585)	369,428,182

Previous period

(Unit: KRW one thousand)

		Total book value	Accumulated impairment losses	Total book value
Trade and other receivables		187,274,516	(7,276,384)	179,998,132
Trade receivables and other current receivables	Current trade receivables	157,843,734	(4,116,420)	153,727,314
	Short-term receivables, net amount	19,936,059	(119,964)	19,816,095
	Short-term loans, net amount	3,040,000	(3,040,000)	0
	Short-term unearned revenue, net amount	6,454,723	0	6,454,723
Trade receivables and other non-current receivables		788,676	0	788,676
Trade receivables and other non-current receivables	Long-term loans, net amount	788,676	0	788,676
Trade and Other Receivables		188,063,192	(7,276,384)	180,786,808

Disclosure of changes in the allowance for trade receivables and other receivables, and the total carrying amount

Current period

(Unit: KRW one thousand)

	Financial Instruments
	Trade receivables
	Book amount
	Accumulated impairment losses
Beginning financial assets	(7,276,384)
Expected credit loss (ECL) before (reversal), financial assets	1,185,153
Decrease through disposal, financial assets	289,646
Ending financial assets	(5,801,585)

Previous period

(Unit: KRW one thousand)

	Financial Instruments
	Trade receivables
	Book amount
	Accumulated impairment losses
Beginning financial assets	(8,259,276)
Expected credit loss (ECL) before (reversal), financial assets	(153,809)
Decrease through disposal, financial assets	1,136,701
Ending financial assets	(7,276,384)

(Note 1) Ending financial assets: At the end of the current period, some trade receivables are secured by collateral, and trade receivables credit insurance has been obtained.

Disclosure of overdue or impaired trade receivables and other receivables

Current period

(Unit: KRW one thousand)

	Financial assets, Classification				
	Trade and Other Receivables				
	Book amount				
	Total book value				
	Past due status				Total past due status
	Present	Within 3 months	Over 3 months but within 6 months	Over 6 months	
Financial assets	267,262,578	95,279,780	2,906,800	9,780,609	375,229,767

Previous period

(Unit: KRW one thousand)

	Financial assets, Classification				
	Trade and Other Receivables				
	Book amount				
	Total book value				
	Past due status				Total past due status
	Present	Within 3 months	Over 3 months but within 6 months	Over 6 months	
Financial assets	166,263,257	14,822,315	4,641,830	2,335,790	188,063,192

6. Trade and Other Receivables – Derecognition of Financial Assets

If the transferred or discounted trade receivables do not satisfy the requirements for the derecognition of financial instruments, the consolidated companies continue to recognize them as the trade and other receivables, whose details are as follows.

Transferred financial assets that are not fully derecognized

Current period

(Unit: KRW one thousand)

	Trade receivables
Assets continuously recognized by the company	15,350,258
Related liabilities continuously recognized by the company	15,350,258
Description of the nature of risks and rewards exposed due to ownership	Resource obligation

Previous period

(Unit: KRW one thousand)

	Trade receivables
Assets continuously recognized by the company	68,989,049
Related liabilities continuously recognized by the company	68,989,049
Description of the nature of risks and rewards exposed due to ownership	Resource obligation

(Note 1) Related liabilities continuously recognized by the company: The consolidated companies recognize short-term borrowings equal to the nominal amount of trade receivables transferred or discounted (refer to Note 17-2).

7. Inventories

Details of inventory

Current period

(Unit: KRW one thousand)

	Total book value	Inventory valuation allowance	Total book value
Current goods	44,568,229	(610,463)	43,957,766
Current products	208,743,687	(19,907,728)	188,835,959
Current processed products	35,225,461	(1,101,271)	34,124,190
Current semi-finished goods	38,700,210	(8,864,755)	29,835,455
Current work-in-process	70,464,856	(15,551,927)	54,912,929
Current raw materials	171,745,555	(30,908,422)	140,837,133
Current supplies	44,249,145	(13,373,759)	30,875,386
Current in-transit inventory	41,344,001	0	41,344,001
Other inventories	763,642	0	763,642
Total current inventories	655,804,786	(90,318,325)	565,486,461

Previous period

(Unit: KRW one thousand)

	Total book value	Inventory valuation allowance	Total book value
Current goods	29,573,909	(557,015)	29,016,894
Current products	144,430,750	(6,449,883)	137,980,867
Current processed products	42,155,957	(1,561,534)	40,594,423
Current semi-finished goods	40,416,968	(20,513,018)	19,903,950
Current work-in-process	24,218,535	(8,048,160)	16,170,375
Current raw materials	116,560,009	(48,628,325)	67,931,684
Current supplies	57,245,236	(22,052,900)	35,192,336
Current in-transit inventory	29,442,806	0	29,442,806
Other inventories	684,620	0	684,620
Total current inventories	484,728,790	(107,810,835)	376,917,955

(Note 1) Total current inventory: The amount of 8,810,973 thousand KRW includes costs related to contract performance (see Note 21).

Disclosure of inventory impairment losses

Current period

(Unit: KRW one thousand)

	Cost of sales
Loss on the valuation of inventories	
Reversal of inventory write-downs	73,579,316

Previous period

(Unit: KRW one thousand)

	Cost of sales
Loss on the valuation of inventories	51,356,102
Reversal of inventory write-downs	

8. Other Assets

Disclosure of other assets

Current period

(Unit: KRW one thousand)

		Disclosure amount
Other current assets		57,923,464
Other current assets	Short-term deposits, net amount	2,455,770
	Current advances paid	17,495,935
	Current prepaid expenses	11,710,933
	Current income tax assets	9,637,627
	Prepaid VATs	66,447
	Ending balance of current emissions allowances, net amount	430,508
	Short-term other assets	16,126,244
Other non-current assets		17,163,951
Other non-current assets	Long-term deposits, net amount	2,386,972
	Non-current advances paid	4,580,260
	Long-term prepaid expenses, net amount	8,882,235
	Long-term other assets	1,314,484

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Other current assets		32,458,495
Other current assets	Short-term deposits, net amount	145,669
	Current advances paid	6,645,891
	Current prepaid expenses	7,927,212
	Current income tax assets	1,859,014
	Prepaid VATs	133,995
	Ending balance of current emissions allowances, net amount	430,508
	Short-term other assets	15,316,206
Other non-current assets		14,374,475

Other non-current assets	Long-term deposits, net amount	7,069,256
	Non-current advances paid	1,255,384
	Long-term prepaid expenses, net amount	4,861,602
	Long-term other assets	1,188,233

9. Current and Non-Current Financial Assets

Disclosure of financial assets

Current period

(Unit: KRW one thousand)

		Disclosure amount
Short-term financial instruments		851,575,312
Short-term financial instruments	Current financial assets measured at fair value through profit or loss	611,864,245
	Time deposit	149,711,067
	Current short-term financial assets held for trading	0
	Promissory notes	90,000,000
Long-term financial products		27,500
Long-term financial products	Security deposit for opening current deposit account	27,500

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Short-term financial instruments		1,204,421,874
Short-term financial instruments	Current financial assets measured at fair value through profit or loss	871,919,247
	Time deposit	177,479,795
	Current short-term financial assets held for trading	55,022,832
	Promissory notes	100,000,000
Long-term financial products		27,500
Long-term financial products	Security deposit for opening current deposit account	27,500

(Note 1) Current financial assets at fair value through profit or loss: It includes demand deposit financial instruments deposited with financial institutions and bond funds.

(Note 2) Time deposits: Some financial assets are provided as collateral for borrowings (see Note 5-5). (Note 3) Time deposits, short-term financial assets held for trading: Pledge rights have been established (refer to Note 5-5).

10. Long-Term Investments

Details of long-term investment assets_Profit or loss-Acquisition of financial assets measured at fair value

Current period

(Unit: KRW one thousand)

Assets									
Long-term investment assets									
Financial assets, Category									
Financial assets measured at fair value through profit or loss									
Unlisted shares						Debt securities			
Eastman Fiber Korea Ltd.	Yongyeon Industrial District 4 Industrial Water Management Association	SML Biopharma Co., Ltd.	Sunflower Therapeutics PBC	K-Bio Vaccine Fund		Standigm Inc.	Korea Investment Bio Global Fund	Sante Health Ventures IV LP	TiumBio Co., Ltd.

	Total measurement		Total measurement		Total measurement		Total measurement		Total measurement		Total measurement		Total measurement		Total measurement		Total measurement		Total measurement		Total measurement		Total measurement	
	Acquisition cost	Fair value	Acquisition cost	Fair value	Acquisition cost	Fair value	Acquisition cost	Fair value	Acquisition cost	Fair value	Acquisition cost	Fair value	Acquisition cost	Fair value	Acquisition cost	Fair value	Acquisition cost	Fair value	Acquisition cost	Fair value	Acquisition cost	Fair value	Acquisition cost	Fair value
Equity interest, Long-term investment Assets			0.2000		0.3170		0.0342		0.0000		0.0333		0.0139		0.0143		0.0530		0.0790					
Long-term investment Assets - Unquoted equity securities	24,053,347	29,147,160		419,199		1,000,001	1,000,001		2,755,800	2,940,000		1,510,550	1,510,550											
Long-term investment Assets - Uncertificated debt securities														3,000,008	3,000,008		4,053,000	1,602,470		8,127,074	12,540,114		19,999,995	14,268,961

Previous period

(Unit: KRW one thousand)

Assets																											
Long-term investment assets																											
Financial assets, Category																											
Financial assets measured at fair value through profit or loss																											
Unlisted shares														Debt securities													
	Eastman Fiber Korea Ltd.			Yongyeon Industrial District 4 Industrial Water Management Association			SML Biopharma Co., Ltd.			Sunflower Therapeutics PBC			K-Bio Vaccine Fund			Standigm Inc.			Korea Investment Bio Global Fund			Sante Health Ventures IV LP			TiumBio Co., Ltd.		
	Total measurement		Total measurement Total	Total measurement		Total measurement Total	Total measurement		Total measurement Total	Total measurement		Total measurement Total	Total measurement		Total measurement Total	Total measurement		Total measurement Total	Total measurement		Total measurement Total	Total measurement		Total measurement Total	Total measurement		Total measurement Total
	Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value	
Equity interest, Long-term investment Assets																											
Long-term investment Assets - Unquoted equity securities		25,566,223		419,199		1,000,001		0		0																	
Long-term investment Assets - Uncertificated debt securities															3,000,008		1,953,614		6,597,934						19,999,995		

(Note 1) Unlisted shares: The consolidated companies recognize unquoted equity securities, for which there is no active market and fair value cannot be reliably measured, or where the difference between fair value and acquisition cost is not significant, at acquisition cost.

(Note 2) SML Biopharma Co., Ltd.: It is a redeemable convertible preferred stock.

(Note 3) Sunflower Therapeutics PBC: The consolidated companies entered into a Simple Agreement for Future Equity (SAFE) with Sunflower Therapeutics PBC during the period. Under the agreement, the consolidated companies have the right to receive preferred shares from Sunflower Therapeutics PBC, based on the number determined when Sunflower Therapeutics PBC receives a subsequent investment.

(Note 4) Standigm Inc.: These are redeemable convertible preferred stocks (RCPS) with the right to convert to common stocks for 10 years from the date of completion of the transaction, and the right to require redemption from the consolidated companies 3 years after the date of completion of the transaction.

(Note 5) Tiumbio Co., Ltd.: Based on the right to appoint one Director and the right to approve key management decisions, the consolidated companies have determined that they have significant influence over Tiumbio Co., Ltd. However, it has been determined that the consolidated companies cannot practically access the benefits linked to the ownership interest in the associate through this investment. Therefore, it is measured at fair value through profit or loss in accordance with the Corporate Accounting Standard No. 1109.

Details of long-term investment assets _ Financial assets measured at fair value through other comprehensive income

Current period

(Unit: KRW one thousand)

Assets		
Long-term investment assets		
Financial assets, Category		
Financial assets measured at fair value through other comprehensive income		
Unlisted shares	Listed shares	

	J2H Biotech Co., Ltd.			Oncobix Co., Ltd.			CT Cells Co., Ltd.			CLIPS BNC Co., Ltd.			Fina Biosolutions LLC			Novavax Inc.		
	Total measurement		Total measurement	Total measurement		Total measurement	Total measurement		Total measurement	Total measurement		Total measurement	Total measurement		Total measurement	Total measurement		Total measurement
	Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value	
Ownership percentage, Long-term investment assets			0.0088			0.0220			0.0283			0.0054			0.1200			0.0620
Long-term investment assets - Unquoted equity securities	1,500,052	1,500,052		999,980	999,980		1,000,076	177,968		500,006	500,006		4,410,000	4,410,000				
Long-term investment assets - Debt securities																17,137,900	11,818,800	

Previous period

(Unit: KRW one thousand)

	Assets																	
	Long-term investment assets																	
	Financial assets, Category																	
	Financial assets measured at fair value through other comprehensive income																	
	Unlisted shares															Listed shares		
	J2H Biotech Co., Ltd.			Oncobix Co., Ltd.			CT Cells Co., Ltd.			CLIPS BNC Co., Ltd.			Fina Biosolutions LLC			Novavax Inc.		
	Total measurement		Total measurement	Total measurement		Total measurement	Total measurement		Total measurement	Total measurement		Total measurement	Total measurement		Total measurement	Total measurement		Total measurement
	Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value		Acquisition cost	Fair value	
Ownership percentage, Long-term investment assets																		
Long-term investment assets - Unquoted equity securities		1,500,052			999,980			1,000,076			500,006			0				
Long-term investment assets - Debt securities																	40,229,280	

(Note 1) Unlisted shares: The consolidated companies recognize unquoted equity securities, for which there is no active market and fair value cannot be reliably measured, or where the difference between fair value and acquisition cost is not significant, at acquisition cost.

(Note 2) Financial assets measured at fair value through other comprehensive income: The consolidated companies designated the financial instrument as fair value through other comprehensive income at the initial recognition, as it is not held for short-term trading purposes.

(Note 3) Clips BNC Co., Ltd.: Convertible preferred stock

Details of long-term investment assets _ Financial assets measured at fair value through profit or loss _ Subtotal

Current period

(Unit: KRW one thousand)

	Assets			
	Long-term investment assets			
	Financial assets, Category			
	Financial assets measured at fair value through profit or loss			
	Unlisted shares		Debt securities	
	Total measurement			
	Acquisition cost	Fair value	Acquisition cost	Fair value
Financial assets	29,738,897	35,016,910	35,180,077	31,411,553

Previous period

(Unit: KRW one thousand)

	Assets			
	Long-term investment assets			
	Financial assets, Category			

	Financial assets measured at fair value through profit or loss			
	Unlisted shares		Debt securities	
	Total measurement			
	Acquisition cost	Fair value	Acquisition cost	Fair value
Financial assets		26,985,423		31,551,551

Details of long-term investment assets _ Financial assets measured at fair value through other comprehensive income_Subtotal

Current period

(Unit: KRW one thousand)

	Assets			
	Long-term investment assets			
	Financial assets, Category			
	Financial assets measured at fair value through other comprehensive income			
	Unlisted shares		Listed shares	
	Total measurement			
	Acquisition cost	Fair value	Acquisition cost	Fair value
Financial assets	8,410,114	7,588,006	17,137,900	11,818,800

Previous period

(Unit: KRW one thousand)

	Assets			
	Long-term investment assets			
	Financial assets, Category			
	Financial assets measured at fair value through other comprehensive income			
	Unlisted shares		Listed shares	
	Total measurement			
	Acquisition cost	Fair value	Acquisition cost	Fair value
Financial assets		4,000,114		40,229,280

Details of long-term investment assets - Subtotal by category of financial assets

Current period

(Unit: KRW one thousand)

	Assets			
	Long-term investment assets			
	Financial assets, Category			
	Financial assets measured at fair value through profit or loss		Financial assets measured at fair value through other comprehensive income	
	Total measurement			
	Acquisition cost	Fair value	Acquisition cost	Fair value
Financial assets	64,918,974	66,428,463	25,548,014	19,406,806

Previous period

(Unit: KRW one thousand)

	Assets			
	Long-term investment assets			

	Financial assets, Category			
	Financial assets measured at fair value through profit or loss		Financial assets measured at fair value through other comprehensive income	
	Total measurement			
	Acquisition cost	Fair value	Acquisition cost	Fair value
Financial assets		58,536,974		44,229,394

Details of long-term investment assets - Total

Current period

(Unit: KRW one thousand)

	Assets	
	Long-term investment assets	
	Total measurement	
	Acquisition cost	Fair value
Financial assets	90,466,988	85,835,269

Previous period

(Unit: KRW one thousand)

	Assets	
	Long-term investment assets	
	Total measurement	
	Acquisition cost	Fair value
Financial assets		102,766,368

Profit or loss - Disclosure of financial assets measured at fair value

Current period

(Unit: KRW one thousand)

	Assets									
	Long-term investment assets									
	Financial assets, Category									
	Financial assets measured at fair value through profit or loss									
	Financial assets, Classification									
	Unlisted shares					Debt securities				Financial assets, Total classification
	Eastman Fiber Korea Ltd.	Yongyeon District 4 Industrial Water Management Association	SML Biopharma Co., Ltd.	Sunflower Therapeutics PBC	K-Bio Vaccine Fund	Standigm Inc.	Korea Investment Bio Global Fund	Sante Health Ventures IV LP	TiumBio Co., Ltd.	
Beginning financial assets	25,566,223	419,199	1,000,001	0	0	3,000,008	1,953,614	6,597,934	19,999,995	58,536,974
Increase due to issuance or purchase, Financial assets	0	0	0	2,755,800	1,510,550	0	0	2,678,208	0	6,944,558
Decrease due to transfer Financial assets	0	0	0	0	0	0	(549,000)	0	0	(549,000)
Increase (decrease) due to fair value changes Financial assets	3,580,937	0	0	184,200	0	0	197,856	3,263,972	(5,731,034)	1,495,931
Ending financial assets	29,147,160	419,199	1,000,001	2,940,000	1,510,550	3,000,008	1,602,470	12,540,114	14,268,961	66,428,463

Previous period

(Unit: KRW one thousand)

	Assets									
	Long-term investment assets									
	Financial assets, Category									
	Financial assets measured at fair value through profit or loss									
	Financial assets, Classification									
										Financial assets, Total classification

	Unlisted shares					Debt securities				
	Eastman Fiber Korea Ltd.	Yongyeon District 4 Industrial Water Management Association	SML Biopharma Co., Ltd.	Sunflower Therapeutics PBC	K-Bio Vaccine Fund	Standigm Inc.	Korea Investment Bio Global Fund	Sante Health Ventures IV LP	TiumBio Co., Ltd.	
Beginning financial assets	25,128,024	419,199	0			3,000,008	2,712,054	3,368,873	0	34,628,158
Increase due to issuance or purchase, Financial assets	0	0	1,000,001			0	0	2,079,993	19,999,995	23,079,989
Decrease due to transfer Financial assets	0	0	0			0	(373,000)	0	0	(373,000)
Increase (decrease) due to fair value changes Financial assets	438,199	0	0			0	(385,439)	1,149,067	0	1,201,827
Ending financial assets	25,566,223	419,199	1,000,001	0	0	3,000,008	1,953,614	6,597,934	19,999,995	58,536,974

(Note 1) Unlisted shares: The consolidated companies hold a put option on the preferred shares of Eastman Fiber Korea Co., Ltd. and have granted a call option of the same amount to Eastman Chemical Korea B.V., the largest shareholder. In consideration of the option relationship, the valuation of the investment asset is reflected at fair value.

(Note 2) Eastman Fiber Korea Ltd. The consolidated companies hold a put option on the preferred shares of Eastman Fiber Korea Co., Ltd. and have granted a call option of the same amount to Eastman Chemical Korea B.V., the largest shareholder. Considering the option relationship, the valuation of the investment asset has been reflected at fair value.

Other comprehensive income-Disclosure of the fair value of equity instrument investments designated as fair value

Current period
thousand)

(Unit: KRW one

	Assets						
	Long-term investment assets						
	Financial assets, Category						
	Financial assets measured at fair value through other comprehensive income						
	Financial assets, Classification						Financial assets, Total classification
	Unlisted shares					Listed shares	
	J2H Biotech Co., Ltd.	Oncobix Co., Ltd.	CT Cells Co., Ltd.	CLIPS BNC Co., Ltd.	Fina Biosolutions LLC	Novavax Inc.	
Beginning financial assets	1,500,052	999,980	1,000,076	500,006	0	40,229,280	44,229,394
Increase due to issuance or purchase, Financial assets	0	0	0	0	4,174,500	0	4,174,500
Decrease due to transfer Financial assets	0	0	0	0	0	(105,307,947)	(105,307,947)
Increase (decrease) due to fair value changes Financial assets	0	0	(822,108)	0	235,500	76,897,467	76,310,859
Ending financial assets	1,500,052	999,980	177,968	500,006	4,410,000	11,818,800	19,406,806

Previous period

(Unit: KRW one thousand)

	Assets						
	Long-term investment assets						
	Financial assets, Category						
	Financial assets measured at fair value through other comprehensive income						
	Financial assets, Classification					Financial assets, Total classification	
	Unlisted shares				Listed shares		
	J2H Biotech Co., Ltd.	Oncobix Co., Ltd.	CT Cells Co., Ltd.	CLIPS BNC Co., Ltd.	Fina Biosolutions LLC		Novavax Inc.
Beginning financial assets	1,500,052	999,980	1,000,076	500,006		0	4,000,114
Increase due to issuance or purchase, Financial assets	0	0	0	0		111,396,350	111,396,350
Decrease due to transfer Financial assets	0	0	0	0		0	0
Increase (decrease) due to fair value changes Financial assets	0	0	0	0		(71,167,070)	(71,167,070)
Ending financial assets	1,500,052	999,980	1,000,076	500,006	0	40,229,280	44,229,394

(Note 1) Unlisted shares: The consolidated companies hold a put option on the preferred shares of Eastman Fiber Korea Co., Ltd. and

have granted a call option of the same amount to Eastman Chemical Korea B.V., the largest shareholder. In consideration of the option relationship, the valuation of the investment asset is reflected at fair value.

Disclosure of changes in long-term investment assets

Current period

(Unit: KRW one thousand)

	Assets						
	Long-term investment assets						
	Financial assets, Category						Financial assets, Total by category
	Financial assets measured at fair value through profit or loss			Financial assets measured at fair value through other comprehensive income			
	Financial assets, Classification						
	Unlisted shares	Debt securities	Listed shares	Unlisted shares	Debt securities	Listed shares	
Beginning financial assets	26,985,423	31,551,551		4,000,114		40,229,280	102,766,368
Increase due to issuance or purchase, Financial assets	4,266,350	2,678,208		4,174,500		0	11,119,058
Decrease due to transfer Financial assets	0	(549,000)		0		(105,307,947)	(105,856,947)
Increase (decrease) due to fair value changes Financial assets	3,765,137	(2,269,206)		(586,608)		76,897,467	77,806,790
Ending financial assets	35,016,910	31,411,553		7,588,006		11,818,800	85,835,269

Previous period

(Unit: KRW one thousand)

	Assets						
	Long-term investment assets						
	Financial assets, Category						Financial assets, Total by category
	Financial assets measured at fair value through profit or loss			Financial assets measured at fair value through other comprehensive income			
	Financial assets, Classification						
	Unlisted shares	Debt securities	Listed shares	Unlisted shares	Debt securities	Listed shares	
Beginning financial assets	25,547,223	9,080,935		4,000,114		0	38,628,272
Increase due to issuance or purchase, Financial assets	1,000,001	22,079,988		0		111,396,350	134,476,339
Decrease due to transfer Financial assets	0	(373,000)		0		0	(373,000)
Increase (decrease) due to fair value changes Financial assets	438,199	763,628		0		(71,167,070)	(69,965,243)
Ending financial assets	26,985,423	31,551,551		4,000,114		40,229,280	102,766,368

11. Investments in Associates and Joint Ventures

11-1 The details of the affiliates and joint ventures investments as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Company Name	Location	End of the current period		End of the previous period	
		Equity interest (%)	Book amount	Equity interest (%)	Book amount
Entis Co., Ltd.	Republic of Korea	50.00	8,545,699	50.00	7,221,645
JSI Co., Ltd.	Republic of Korea	40.00	881,199	40.00	635,199
HDC Polyall Co., Ltd. (Notes 1, 2, 3)	Republic of Korea	20.00	-	20.00	2,560,972
Total			9,426,898		10,417,816

(Note 1) Prior to the previous period, after transferring the PPS business division to HDC Polyall Co., Ltd., the consolidated companies acquired a 20%-1 share stake in HDC Polyall Co., Ltd. The consolidated companies determined that they have significant influence over HDC Polyall Co., Ltd. based on the fact that they can appoint 1 out of the 5 Directors of the company.

(Note 2) The consolidated companies recognized an impairment loss of 218.342 million KRW, exceeding the carrying amount estimated

(Note 3) using the recoverable amount based on value in use, during the period.

11-2 The changes in investments in affiliates and joint ventures for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Company Name	Beginning of period	Profits or losses on valuation using equity method	Impairment loss	Others (Note 1)	End of period
Entis Co., Ltd.	7,221,645	1,324,054	-	-	8,545,699
JSI Co., Ltd.	635,199	246,000	-	-	881,199
HDC Polyall Co., Ltd.	2,560,972	(2,356,900)	(218,342)	14,270	-
Total	10,417,816	(786,846)	(218,342)	14,270	9,426,898

(Note 1) These are the changes due to the recognition of other comprehensive income, etc.

<Previous period>

(Unit: KRW one thousand)

Company Name	Beginning of period	Profits or losses on valuation using equity method	Others (Note 1)	End of period
Entis Co., Ltd.	6,184,859	1,036,786	-	7,221,645
JSI Co., Ltd.	515,887	119,312	-	635,199
HDC Polyall Co., Ltd.	6,608,407	(4,021,417)	(26,018)	2,560,972
Total	13,309,153	(2,865,319)	(26,018)	10,417,816

(Note 1) These are the changes due to the recognition of other comprehensive income, etc.

11-3 The summarized financial information of the affiliates and joint ventures investments as of the end of the reporting period is as follows.

<Current period>

(Unit: KRW one thousand)

Company Name	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Equity	Sales	Net income (loss)
Entis Co., Ltd.	21,080,27	3,597,238	7,586,114	-	17,091,39	44,716,01	3,352,368

	4				8	5	
JSI Co., Ltd.	2,331,361	6,869,159	9,084,662	1,557,171	(1,441,313)	9,289,830	610,322
HDC Polyall (Note)	47,253,584	13,098,015	59,198,357	61,497	1,091,745	29,835,731	(11,784,885)

<Previous period>

(Unit: KRW one thousand)

Company Name	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Equity	Sales	Net income (loss)
Entis Co., Ltd.	19,276,406	1,895,395	6,632,757	95,753	14,443,291	41,143,718	2,073,571
JSI Co., Ltd.	2,322,818	6,992,523	9,925,968	1,445,689	(2,056,316)	9,022,270	298,279
HDC Polyall (Note)	37,238,324	11,751,311	32,156,816	4,027,542	12,805,277	36,190,369	(20,107,733)

Meanwhile, the consolidated companies determined that there were indicators of asset impairment regarding the investment in shares of HDC Polyall Co., Ltd. during the period, and conducted an impairment test. In the impairment test, the recoverable amount was evaluated based on value in use. The future cash flows used to estimate the value in use were determined based on the Company's past operating performance and future business plans. The key assumptions used in the value in use calculation are as follows.

Discount rate	Permanent growth rate
11.87%	0%

Meanwhile, as of the reporting period end, there is no remaining recoverable amount for HDC POLYALL Co., Ltd. Therefore, no changes in the estimated value in use have occurred due to variations in key assumptions such as the discount rate and perpetual growth rate.

12. Tangible Assets

Disclosure of detailed information on tangible assets

Current period

(Unit: KRW one thousand)

	Land	Building	Structure	Mechanical equipment	Vehicles and transport equipment	Other tangible assets	Assets under construction in progress	Machineries in transit	Total tangible assets
Beginning tangible assets	227,771,927	363,809,574	128,402,953	322,379,018	407,979	25,927,618	524,923,764	8,010,947	1,601,633,780
Increase other than through business combination acquisition, Tangible assets	0	13,822,110	11,257,858	43,155,729	2,186	2,915,123	346,545,502	5,688,266	423,386,774
Disposal, Tangible assets	(1,810,979)	(1,162,190)	(41,330)	(1,236,930)	(11,428)	(4,689)	(702,964)	0	(4,970,510)
Depreciation expense, investments in equity instruments	0	(16,767,160)	(10,727,845)	(68,841,217)	(132,272)	(11,446,694)	0	0	(107,915,188)
Impairment loss recognized in profit or loss, investments in equity instruments	0	(1,465,806)	(1,285,082)	(1,122,804)	0	0	0	0	(3,873,692)
Acquisition through business combination, Tangible assets	26,696,444	234,899,872	59,037,737	123,018,379	41,700	64,214,214	19,494,912	0	527,403,258
Increase (decrease) due to exchanges and other changes Tangible assets	1,135,993	38,411,720	19,999,285	48,893,035	55,295	4,951,834	(84,476,091)	(5,404,154)	23,566,917
Ending tangible assets	253,793,385	631,548,120	206,643,576	466,245,210	363,460	86,557,406	805,785,123	8,295,059	2,459,231,339

Previous period

(Unit: KRW one thousand)

	Land	Building	Structure	Mechanical equipment	Vehicles and transport equipment	Other tangible assets	Assets under construction in progress	Machineries in transit	Total tangible assets
Beginning tangible assets	226,247,548	323,152,004	125,065,241	271,694,558	253,955	18,934,090	225,755,603	2,028,060	1,193,131,059
Increase other than through business combination acquisition, Tangible assets	950,936	988,599	4,924,663	16,929,705	281,237	11,225,577	357,180,959	7,299,175	399,780,851
Disposal, Tangible assets	0	(374)	(164,939)	(38,877)	(8)	(21,389)	(125,364)	0	(350,951)
Depreciation expense, investments in equity instruments	0	(12,968,715)	(7,646,677)	(59,144,349)	(129,521)	(7,748,976)	0	0	(87,638,238)
Impairment loss recognized in profit or loss, investments in equity instruments	0	(287,856)	(811,323)	(5,836,375)	0	(1,073)	0	0	(6,936,627)
Acquisition through business combination, Tangible assets	0	44,046,445	0	65,492,138	0	0	0	0	109,538,583
Increase (decrease) due to exchanges and other changes Tangible assets	573,443	8,879,471	7,035,988	33,282,218	2,316	3,539,389	(57,887,434)	(1,316,288)	(5,890,897)
Ending tangible assets	227,771,927	363,809,574	128,402,953	322,379,018	407,979	25,927,618	524,923,764	8,010,947	1,601,633,780

(Note 1) Current period - Impairment loss recognized in profit or loss, tangible assets: Impairment loss was recognized on idle assets at the Ulsan plant.

(Note 2) Previous period - Impairment loss recognized in profit or loss, tangible assets: An impairment loss was recognized on the unused tangible assets due to the relocation of SKYBON production facilities to SK Environmental Protection Materials (Yantai Co., Ltd.

(Note 3) Increase (decrease) due to exchanges and other changes, Tangible assets: It includes the reclassification of construction-in-progress assets to their main accounts and intangible assets, receipt of government subsidies, and the effect of exchange rate fluctuations.

Capitalized borrowing costs

Current period

(Unit: KRW one thousand)

	Sub-scope	Upper scope	Total scope
Capitalized borrowing costs			35,364,364
The capitalization interest rate used to determine the capitalizable borrowing costs	0.0474	0.0679	

Previous period

(Unit: KRW one thousand)

	Sub-scope	Upper scope	Total scope
Capitalized borrowing costs			13,296,885
The capitalization interest rate used to determine the capitalizable borrowing costs	0.0352	0.0679	

Insured assets

Current period

(Unit: KRW one million)

	Tangible assets, etc.

Insurance coverage	Comprehensive property insurance
Insured amount	3,812,804
Insured amount (CNY) [CNY, per day]	384,146,022
Insured amount (EUR) [EUR, per day]	10,000,000
Insured amount (MYR) [MYR, per day]	200,000

Previous period

(Unit: KRW one million)

	Tangible assets, etc.
Insurance coverage	Comprehensive property insurance
Insured amount	2,722,576
Insured amount (CNY) [CNY, per day]	373,550,602
Insured amount (EUR) [EUR, per day]	
Insured amount (MYR) [MYR, per day]	

New facility investment

(Unit: KRW one thousand)

	Division
	Subsidiaries
	SK Bioscience Co., Ltd.
	Assets
	New facility investment
Date of Board resolution	2023-02-08
Investment details	Infrastructure development for the expansion of the vaccine business and the promotion of new business initiatives
Investment amount	283,800,000
Expected investment completion date	2025-12-31

12. Tangible Assets – Assets Pledged as Collateral

Disclosure of assets provided as collateral

(Unit: KRW one thousand)

	Land
Conditions of assets provided as collateral for liabilities or contingent liabilities	The land located at 137-3, Hwangseong-dong, Nam-gu, Ulsan, along with other properties, was provided as collateral for a real estate collateral trust agreement, with the syndicate of lenders as the primary beneficiaries and a set amount of 636 billion KRW.
Collateral amount	636,000,000

13. Leases

Company as a lessee

Disclosure of quantitative information on right-of-use assets

Current period

(Unit: KRW one thousand)

	Land	Building	Structure	Mechanical equipment	Vehicles and transport equipment	Total assets
Beginning right-of-use assets	18,820,099	9,094,621	2,996,355	1,768,351	2,638,196	35,317,622
Acquisition of right-of-use assets	728,540	5,907,990	10,926,881	74,282	1,836,927	19,474,620
Decrease due to contract termination or cancellation, Right-of-use assets	0	(2,635,309)	0	0	(357,634)	(2,992,943)
Amortization of right-to-use assets	(142,717)	(7,842,035)	(253,708)	(481,069)	(1,967,817)	(10,687,346)
Acquisition through business combination, Right-of-use assets	0	0	0	0	1,964,890	1,964,890
Increase (decrease) due to other changes, Right-of-use assets	1,095,768	516,233	0	0	613,379	2,225,380
Ending right-of-use assets	20,501,690	5,041,500	13,669,528	1,361,564	4,727,941	45,302,223

Previous period

(Unit: KRW one thousand)

	Land	Building	Structure	Mechanical equipment	Vehicles and transport equipment	Total assets
Beginning right-of-use assets	3,850,072	16,509,397	3,113,476	2,438,382	2,697,857	28,609,184
Acquisition of right-of-use assets	0	1,947,615	0	0	2,147,589	4,095,204
Decrease due to contract termination or cancellation, Right-of-use assets	0	0	0	0	(328,022)	(328,022)
Amortization of right-to-use assets	(394,444)	(9,307,807)	(117,121)	(670,031)	(1,879,327)	(12,368,730)
Acquisition through business combination, Right-of-use assets	15,661,380	0	0	0	0	15,661,380
Increase (decrease) due to other changes, Right-of-use assets	(296,909)	(54,584)	0	0	99	(351,394)
Ending right-of-use assets	18,820,099	9,094,621	2,996,355	1,768,351	2,638,196	35,317,622

(Note 1) Increase (decrease) due to exchanges and other changes, right-of -use assets: They consist of the effects of exchange rate fluctuations, etc.

Disclosure of maturity analysis of lease liabilities

Current period

(Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years	Total Subtotal
Total lease liabilities	7,999,427	4,504,214	5,430,026	18,359,819	36,293,486
Lease liabilities	7,804,298	4,106,850	4,323,622	8,254,231	24,489,001

Previous period

(Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years	Total Subtotal
Total lease liabilities	7,901,030	3,126,809	4,688,348	3,533,831	19,250,018
Lease liabilities	7,677,175	2,933,661	4,137,374	1,951,859	16,700,069

Disclosure of quantitative information on lease liabilities

Current period

(Unit: KRW one thousand)

	Disclosure amount
Beginning lease liabilities	16,700,069
Additions to lease liabilities	19,474,620
Increase due to business combination, lease liabilities	1,964,890
Decrease due to contract termination or cancellation, Lease liabilities	(3,005,418)
Lease liabilities' interest expenses	885,531
Payments of lease liabilities	(11,641,073)
Increase (decrease) due to exchanges and other changes, lease liabilities	110,382
Ending lease liabilities	24,489,001

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Beginning lease liabilities	24,870,340
Additions to lease liabilities	4,075,559
Increase due to business combination, lease liabilities	0
Decrease due to contract termination or cancellation, Lease liabilities	(329,030)
Lease liabilities' interest expenses	996,956
Payments of lease liabilities	(12,888,101)
Increase (decrease) due to exchanges and other changes, lease liabilities	(25,655)
Ending lease liabilities	16,700,069

(Note 1) Increase (decrease) due to exchanges and other changes, lease liabilities: They consist of the effects of exchange rate fluctuations, etc. Disclosure of quantitative information on leases by lessees

Current period

(Unit: KRW one thousand)

	Disclosure amount
Costs related to short-term leases for which the recognition exemption is applied	744,276
Costs related to leases of low-value assets for which the recognition exemption is applied	442,308
Amortization of right-of-use assets	10,687,346
Lease liabilities' interest expenses	885,531

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Costs related to short-term leases for which the recognition exemption is applied	950,013
Costs related to leases of low-value assets for which the recognition exemption is applied	402,980
Amortization of right-of-use assets	12,368,730

Lease liabilities' interest expenses	996,956

Total cash outflows from leases

Current period (Unit: KRW one thousand)

	Disclosure amount
Lease cash outflows	12,827,657

Previous period (Unit: KRW one thousand)

	Disclosure amount
Lease cash outflows	14,241,094

The consolidated companies have a number of lease agreements executed with the options for extension and termination included. Such options are negotiated by the senior management to provide flexibility in the management of the portfolio of leased assets and to meet the business needs of the consolidated companies. The senior management apply their material judgment in determining whether it is significantly certain that such extension and termination options will be exercised.

Company as a lessor

The consolidated companies have executed operating lease agreements for a portfolio of investment real estate properties consisting of specific offices and manufacturing properties. The terms of these leases range from 1 to 50 years. Included in all leases is a provision that allows for an annual increase in rental payments based on current market conditions. The lessee must also guarantee the residual value of the real estate properties.

Operating lease rental income

Current period (Unit: KRW one thousand)

	Disclosure amount
Operating lease income	2,578,345

Previous period (Unit: KRW one thousand)

	Disclosure amount
Operating lease income	2,172,493

Disclosure of maturity analysis of operating lease income

Current period (Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 3 years or less	Over 3 years, 4 years or less	Over 4 years, 5 years or less	Over 5 years	Total Subtotal
Undiscounted operating lease income to be received	2,684,547	994,152	985,063	979,077	979,077	13,503,188	20,125,104

Previous period (Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 3 years or less	Over 3 years, 4 years or less	Over 4 years, 5 years or less	Over 5 years	Total Subtotal
Undiscounted operating lease income to be received	2,413,094	1,065,131	874,080	708,851	708,851	8,436,347	14,206,354

14. Intangible Assets

Disclosure of detailed information about intangible assets

Current period

(Unit: KRW one thousand)

	Goodwill	Copyrights, patents, other industrial property rights, service operation rights	Memberships	Capitalized development expenditures	Computer software	Other intangible assets	Total Intangible assets and goodwill
Intangible assets and goodwill at the beginning of the period	86,234	10,125,726	9,373,215	8,280,894	26,237,940	100,135	54,204,144
Increase other than through business combination acquisition, Intangible assets other than goodwill	0	3,287,506	0	5,059,786	9,789,197	42,323	18,178,812
Disposal, Intangible assets goodwill	0	(17,764)	(1,083,320)	0	(1)	0	(1,101,085)
Other amortization expenses, Intangible assets other than goodwill	0	(2,814,170)	0	(2,313,498)	(11,332,918)	(443,700)	(16,904,286)
Impairment loss recognized in profit or loss, Intangible assets and goodwill							
Acquisition through business combination Intangible assets and goodwill	55,351,342	0	0	0	12,746,036	29,588,470	97,685,848
Increase (decrease) due to exchanges and other changes, Intangible assets and goodwill	2,084,696	1,161,933	0	0	6,600,910	1,067,321	10,914,860
Intangible assets and goodwill at the end of the period	57,522,272	11,743,231	8,289,895	11,027,182	44,041,164	30,354,549	162,978,293

Previous period

(Unit: KRW one thousand)

	at the beginning of the period	Copyrights, patents, other industrial property rights, service operation rights	Memberships	Capitalized development expenditures	Computer software	Other intangible assets	Total Intangible assets and goodwill
Intangible assets and goodwill at the beginning of the period	86,234	5,099,426	9,373,215	11,882,434	25,335,930	0	51,777,239
Increase other than through business combination acquisition, Intangible assets other than goodwill	0	5,644,728	0	0	4,991,267	102,892	10,738,887
Disposal, Intangible assets goodwill	0	(1)	0	0	(1,969)	0	(1,970)
Other amortization expenses, Intangible assets other than goodwill	0	(1,768,154)	0	(2,447,902)	(8,619,464)	(857)	(12,836,377)
Impairment loss recognized in profit or loss, Intangible assets and goodwill	0	0	0	(1,153,638)	0	0	(1,153,638)
Acquisition through business combination Intangible assets and goodwill	0	0	0	0	0	0	0

Increase (decrease) due to exchanges and other changes, Intangible assets and goodwill	0	1,149,727	0	0	4,532,176	(1,900)	5,680,003
Intangible assets and goodwill at the end of the period	86,234	10,125,726	9,373,215	8,280,894	26,237,940	100,135	54,204,144

(Note 1) Increase (decrease) due to other changes, intangible assets and goodwill: They consist of the main account reclassification for construction in progress, the effects of exchange rate fluctuations, etc.

Capitalized amount of research and development costs - Bioindustry disclosure

Current period

(Unit: KRW one thousand)

	New drug development stage, biopharmaceuticals												New drug development stage, biotechnology Total pharmaceuticals
	Development completed						Development in progress						
	New drug classification, Bio Pharmaceuticals												
	Genetic recombination	Vaccines					Genetic recombination	Vaccines					
	NBP601	NBP607	NBP608 Herpes Zoster	NBP608 Chickenpox	GBP510 COVID-19	GBP410 Pneumococcus	NBP601	NBP607	NBP608 Herpes Zoster	NBP608 Chickenpox	GBP510 COVID-19	GBP410 Pneumococcus	
Capitalized research and development costs at the clinical phase 3 stage,Bio pharmaceuticals	0	4,354,658	10,199,115	3,486,768	1,344,045							5,059,786	24,444,372
Capitalized research and development costs at the point of sales approval, Bio pharmaceuticals	5,100,000	0	0	0	0							0	5,100,000
Total, Capitalized research and development costs, Bio pharmaceuticals	5,100,000	4,354,658	10,199,115	3,486,768	1,344,045							5,059,786	29,544,372
Book value, Capitalized research and development costs, Bio pharmaceuticals	1,020,000	694,172	2,974,742	1,278,482	0							5,059,786	11,027,182
Accumulated impairment losses, Capitalized research and development costs, Bio pharmaceuticals	0	0	0	0	(1,153,638)							0	(1,153,638)
Remaining amortization period, Capitalized research and development costs, Bio pharmaceuticals	2 years	1 year	3 years	4 years	-							-	

Previous period

(Unit: KRW one thousand)

	New drug development stage, biopharmaceuticals												New drug development stage, biotechnology Total pharmaceuticals
	Development completed						Development in progress						
	New drug classification, Bio Pharmaceuticals												
	Genetic recombination	Vaccines					Genetic recombination	Vaccines					
	NBP601	NBP607	NBP608 Herpes Zoster	NBP608 Chickenpox	GBP510 COVID-19	GBP410 Pneumococcus	NBP601	NBP607	NBP608 Herpes Zoster	NBP608 Chickenpox	GBP510 COVID-19	GBP410 Pneumococcus	
Capitalized research and development costs	0	4,354,658	10,199,115	3,486,768	1,344,045								19,384,586
Capitalized research and development costs at the point of sales approval, Bio pharmaceuticals	5,100,000	0	0	0	0								5,100,000
Total, Capitalized research and development costs, Capitalized research and development costs, Bio pharmaceuticals	5,100,000	4,354,658	10,199,115	3,486,768	1,344,045								24,484,586
Book value, Capitalized research and development costs, Bio pharmaceuticals	1,530,000	1,129,082	3,994,654	1,627,158	0								8,280,894
Accumulated impairment losses, Capitalized research and development costs, Bio pharmaceuticals	0	0	0	0	(1,153,638)								(1,153,638)
Remaining amortization period, Capitalized research and development costs, Bio pharmaceuticals	3 years	2 years	4 years	5 years	-								

- (Note 1) NBP601: For hemophilia treatment, it is currently marketed after receiving sales approval in Europe, the United States, and other regions. (Note 2) NBP607: As an influenza prevention vaccine product, it has been marketed since receiving sales approval in 2015.
- (Note 3) NBP608 Herpes Zoster: It is a herpes zoster vaccine product for adults, which is currently on sale after securing approval for sales in 2017.
- (Note 4) NBP608 Chickenpox: As a varicella prevention vaccine for infants, it has been marketed since receiving sales approval in 2018. (Note 5) GBP510 COVID-19: GBP 510, as a COVID-19 prevention vaccine product, recognized an impairment loss due to the indication of impairment on the development costs of GBP 510 in the previous period.
- (Note 6) Current period - GBP410 Pneumococcus: As a pneumococcal prevention vaccine product, it is currently undergoing clinical phase 3.

Changes in development costs

Current period

(Unit: KRW one thousand)

	Intangible assets other than goodwill						
	Capitalized development expenditures						
	New drug classification, Bio Pharmaceuticals						New drug classification, Bio pharmaceuticals total
	NBP601	NBP607	NBP608		GBP510	GBP410	
			Herpes zoster	Chickenpox			
Beginning book value, Capitalized research and development costs, Bio pharmaceuticals	1,530,000	1,129,082	3,994,654	1,627,158	0	0	8,280,894
Increase other than through business combination acquisition, Capitalized research and development costs	0	0	0	0		5,059,786	5,059,786
Other amortization expenses, Capitalized research and development costs	(510,000)	(434,910)	(1,019,912)	(348,676)		0	(2,313,498)
Impairment losses, Capitalized research and development costs	0	0	0	0		0	0
Ending book value, Capitalized research and development costs, Bio pharmaceuticals	1,020,000	694,172	2,974,742	1,278,482		5,059,786	11,027,182

Previous period

(Unit: KRW one thousand)

	Intangible assets other than goodwill						
	Capitalized development expenditures						
	New drug classification, Bio Pharmaceuticals						New drug classification, Bio pharmaceuticals total
	NBP601	NBP607	NBP608		GBP510	GBP410	
			Herpes zoster	Chickenpox			
Beginning book value, Capitalized research and development costs, Bio pharmaceuticals	2,040,000	1,563,991	5,014,565	1,975,835	1,288,043		11,882,434
Increase other than through business combination acquisition, Capitalized research and development costs	0	0	0	0	0		0
Other amortization expenses, Capitalized research and development costs	(510,000)	(434,909)	(1,019,911)	(348,677)	(134,405)		(2,447,902)
Impairment losses, Capitalized research and development costs	0	0	0	0	(1,153,638)		(1,153,638)

Ending book value, Capitalized research and development costs, Bio pharmaceuticals	1,530,000	1,129,082	3,994,654	1,627,158	0	0	8,280,894

Research and development costs recognized as expenses

Current period

(Unit: KRW one thousand)

	Selling, general and administrative expenses	External subsidies, etc.	Total by function
Research and development costs	146,886,600	(29,761,795)	117,124,805

Previous period

(Unit: KRW one thousand)

	Selling, general and administrative expenses	External subsidies, etc.	Total by function
Research and development costs	161,831,075	(31,537,424)	130,293,651

Disclosure of impairment losses and reversal of impairment losses

(Unit: KRW one thousand)

	Intangible assets and goodwill
Explanation of goodwill not allocated to cash-generating units	The consolidated companies have goodwill arising from a business combination resulting from the acquisition of shares in IDT Biologika GmbH as of the end of the current period. However, as of the end of the current period, the initial accounting treatment for business combinations under Corporate Accounting Standard No. 1103 'Business Combinations' has been determined provisionally, and the business combination has been accounted for using provisional values. As a result, the initial allocation of goodwill has not been completed. The consolidated companies will adjust and recognize the confirmed results of the initial accounting treatment for the business combination, based on the provisional values, when the initial accounting treatment is finalized within the measurement period not exceeding 12 months from the acquisition date.
Description of the key assumptions used by management in estimating future cash flows	The consolidated companies perform impairment testing annually for intangible assets and goodwill with indefinite useful lives, and for this purpose, they evaluate the recoverable amount. The key assumptions used in the calculation of the recoverable amount reflect management's assessment of the future of the industry, which is determined considering both external and internal information. However, due to reasonably possible changes in the key assumptions, it is determined that the related total book value will not exceed the total recoverable amount, but may be offset by changes in the key assumptions.
Goodwill	57,436,038

15. Investment Properties

Disclosure of detailed information on investment property

Current period

(Unit: KRW one thousand)

	Land	Building	Total investment property
Beginning investment property	16,797,406	499,928	17,297,334
Depreciation expense, Investment property	0	(42,030)	(42,030)
Acquisition through business combination, Investment property	6,433,388	0	6,433,388
Increase (decrease) due to net foreign exchange differences, Investment property	238,601	0	238,601
Ending investment property	23,469,395	457,898	23,927,293

Previous period

(Unit: KRW one thousand)

	Land	Building	Total investment property
Beginning investment property	16,797,406	541,960	17,339,366
Depreciation expense, Investment property	0	(42,032)	(42,032)
Acquisition through business combination, Investment property			
Increase (decrease) due to net foreign exchange differences, Investment property			
Ending investment property	16,797,406	499,928	17,297,334

Rental income generated from investment properties

Current period

(Unit: KRW one thousand)

	Disclosure amount
Rental income generated from investment properties	2,578,345

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Rental income generated from investment properties	2,172,493

Fair value of investment properties

(Unit: KRW one thousand)

	Fair value disclosed but not measured at fair value in the balance sheet
Investment real estate properties	62,436,731

16. Trade and Other Payables

Trade and other payables

Current period

(Unit: KRW one thousand)

	Disclosure amount
Current trade payables	117,810,300
Short-term payables	83,382,493
Accrued expenses classified as current liabilities	106,367,363
Accounts payable and other current liabilities	307,560,156

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Current trade payables	112,561,365
Short-term payables	75,372,068
Accrued expenses classified as current liabilities	58,730,480
Accounts payable and other current liabilities	246,663,913

Disclosure of supplier financing agreements

(Unit: KRW one thousand)

	Supplier financing agreements
Description of agreements	The consolidated company has entered into supplier financing agreements with several key suppliers in the domestic market. Participation in the agreements is determined at the discretion of the suppliers. Suppliers participating in the supplier financing agreements can receive early payment of their receivables from the consolidated companies from the financial provider. If the supplier chooses early payment, the supplier will pay the fee to the financial provider, not the consolidated companies. The financial provider must receive approval of the invoice for the goods supplied or received by the consolidated companies before making payment for the receivables. Before the payment due date, the financial provider pays the supplier the amount due. In all cases, the con company pays the financial provider on the original payment due date as described above and settles the debt. The payment terms with the supplier are not renegotiated due to the agreement. The consolidated companies do not provide collateral to the financial provider. All trade payables under the supplier financing agreements are included in trade payables and other payables in the consolidated statement of financial position and are included in the trade payables in the table above.
The book value of trade payables that are part of the supplier financing agreements	19,588,587
The amount received by the supplier	1,624,607

17. Bonds and Borrowings

Details of borrowings

Current period

(Unit: KRW one thousand)

	Disclosure amount
Current borrowings (including bonds)	303,095,328
Current bonds and non-current bonds with liquidity substitute portion	94,970,000
The portion of liquidity substitution for non-current borrowings from financial institutions (excluding bonds)	32,427,424
The non-current portion of non-current bonds	219,404,969
The non-current portion of non-current borrowings from financial institutions (excluding bonds) that is replaced by liquidity	983,815,255
Borrowings (including bonds)	1,633,712,976

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Current borrowings (including bonds)	263,707,890
Current bonds and non-current bonds with liquidity substitute portion	189,855,128
The portion of liquidity substitution for non-current borrowings from financial institutions (excluding bonds)	2,550,000
The non-current portion of non-current bonds	164,557,091
The non-current portion of non-current borrowings from financial institutions (excluding bonds) that is replaced by liquidity	472,518,337
Borrowings (including bonds)	1,093,188,446

Disclosure of details regarding short-term borrowings

Current period

(Unit: KRW one thousand)

	Borrowing name									Total borrowing names
	Short-term borrowings									
	Hana Bank, etc. - General bank borrowings			Hana Bank, etc. - Accounts receivable discounting			Shinhan Bank, etc. - Commercial paper (CP)			
	Scope		Total scope	Scope		Total scope	Scope		Total scope	
	Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		
Borrowings, Interest rate	0.0305	0.0543		0.0455	0.0636				0.0455	
Current borrowings (including bonds)			237,745,070			15,350,258			50,000,000	303,095,328

Previous period

(Unit: KRW one thousand)

	Borrowing name									Total borrowing names
	Short-term borrowings									
	Hana Bank, etc. - General bank borrowings			Hana Bank, etc. - Accounts receivable discounting			Shinhan Bank, etc. - Commercial paper (CP)			
	Scope		Total scope	Scope		Total scope	Scope		Total scope	
	Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		
Borrowings, Interest rate										
Current borrowings (including bonds)			144,718,841			68,989,049			50,000,000	
									263,707,890	

Disclosure of detailed information about bonds

Current period

(Unit: KRW one thousand)

	Borrowing name							Total borrowing names
	Debenture							
	The 11-2nd public placement bonds	The 12-2nd public placement bonds	The 13-1st public placement bonds	The 13-2nd public placement bonds	The 13-3rd public placement bonds	The 14-1st public placement bonds	The 14-2nd public placement bonds	

Borrowings, Maturity	2024.01.31	2024.10.30	2024.08.23	2025.02.24	2026.02.24	2026.04.24	2027.04.03	
Borrowings, Interest rate				0.0461	0.0460	0.0408	0.0417	
Debtenture	0	0	0	95,000,000	70,000,000	50,000,000	100,000,000	315,000,000
Bonds issued at a discount								(625,031)
Liquidity substitute portion of current bonds and non-current bonds								(94,970,000)
Non-current portion of non-current bonds								219,404,969

Previous period

(Unit: KRW one thousand)

	Borrowing name							Total borrowing names
	Debenture							
	The 11-2nd public placement bonds	The 12-2nd public placement bonds	The 13-1st public placement bonds	The 13-2nd public placement bonds	The 13-3rd public placement bonds	The 14-1st public placement bonds	The 14-2nd public placement bonds	
Borrowings, Maturity	2024.01.31	2024.10.30	2024.08.23	2025.02.24	2026.02.24			
Borrowings, Interest rate								
Debenture	80,000,000	75,000,000	35,000,000	95,000,000	70,000,000	0	0	355,000,000
Bonds issued at a discount								(587,781)
Liquidity substitute portion of current bonds and non-current bonds								(189,855,128)
Non-current portion of non-current bonds								164,557,091

Disclosure of detailed information on long-term borrowings from financial institutions

Current period

(Unit: KRW one thousand)

	Borrowing name															Total borrowing names
	Long-term borrowings															
	Hana Bank, etc. - facility loan			Woori Bank - facility loan			Korea Development Bank, etc. - acquisition financing			Agricultural Bank of China - general loan			KB Kookmin Bank, etc. - project financing loan			
	Scope		Total scope	Scope		Total scope	Scope		Total scope	Scope		Total scope	Scope		Total scope	
	Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		
Borrowings, Interest rate	0.0430	0.0490				0.0509			0.0459	0.0343	0.0508		0.0646	0.0669		
Financial institution borrowings (Excluding bonds)			24,660,950			80,000,000			112,239,984			295,341,745			504,000,000	
Liquidity substitute portion Of non- current financial institution borrowings (excluding bonds)															(32,427,424)	
Non-current substitute portion of Liquidity substitution, increase (decrease) in liabilities arising from (excluding bonds)															983,815,255	

Previous period

(Unit: KRW one thousand)

	Borrowing name															Total borrowing names
	Long-term borrowings															
	Hana Bank, etc. - facility loan			Woori Bank - facility loan			Korea Development Bank, etc. - acquisition financing			Agricultural Bank of China - general loan			KB Kookmin Bank, etc. - project financing loan			
	Scope		Total scope	Scope		Total scope	Scope		Total scope	Scope		Total scope	Scope		Total scope	
	Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		
Borrowings, Interest rate																
Financial institution borrowings (Excluding bonds)			23,127,085			0			0			86,371,059			365,570,193	475,068,337

Liquidity substitute portion Of non-current financial institution borrowings (excluding bonds)																	(2,550,000)
Non-current substitute portion Of Liquidity substitution, increase (decrease) in liabilities arising from (excluding bonds)																	472,518,337

The consolidated companies provide collateral to financial institutions for long-term borrowings in the form of various assets, including tangible assets and equity securities (refer to Note 24).

18. Other Liabilities

Disclosure of other liabilities

Current period

(Unit: KRW one thousand)

		Disclosure amount
Other current liabilities		37,911,990
Other current liabilities	Current advances received	27,474,816
	Short-term deposits received	6,162,232
	Short-term security deposits payable	2,866,627
	Current emission liabilities	323,756
	Current unpaid dividends	10,625
	Short-term unearned revenue	284,363
	Other liabilities	789,571
Other non-current liabilities		1,245,650
Other non-current liabilities	Non-current employee benefits provision	1,245,650

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Other current liabilities		40,492,185
Other current liabilities	Current advances received	29,051,177
	Short-term deposits received	5,213,733
	Short-term security deposits payable	5,305,897
	Current emission liabilities	75,353
	Current unpaid dividends	9,803
	Short-term unearned revenue	362,854
	Other liabilities	473,368
Other non-current liabilities		733,993
Other non-current liabilities	Non-current employee benefits provision	733,993

19. Emission Rights and Emission Liabilities

Free allocation of emission allowance by compliance year

	2021	2022	2023	2024	2025	Total planned period
Emission allowances allocated free of charge	530,173 tons	530,173 tons	530,173 tons	525,208 tons	525,208 tons	2,640,935 tons

Meanwhile, as of the end of the current period, there are no greenhouse gas emission allowances provided as collateral.

Changes in the quantity of greenhouse gas emission allowances

		2021	2022	2023	2024	2025	Total planned period
Allocation, Emission allowance quantity		652,295 tons	619,877 tons	562,887 tons	568,084 tons	568,084 tons	2,971,227 tons
Allocation, Emission allowance quantity	Free allocation, Emission allowance quantity	530,173 tons	530,173 tons	530,173 tons	525,208 tons	525,208 tons	2,640,935 tons
	Allocation cancellation and Additional allocation, Emission allowance quantity	122,941 tons	90,523 tons	33,533 tons	43,687 tons	43,687 tons	334,371 tons
	Changes due to business division sale, Emission allowance quantity	(819) tons	(819) tons	(819) tons	(811) tons	(811) tons	(4,079) tons
Emissions, Emission allowance quantity		(654,219) tons	(609,844) tons	(555,691) tons	0 tons	0 tons	(1,819,754) tons
Emissions, Emission allowance quantity	Government expenditure, Emission allowance quantity	(654,219) tons	(609,844) tons	(555,691) tons	0 tons	0 tons	(1,819,754) tons
Changes due to emission allowance trading, Emission allowance quantity		(13,328) tons	1,430 tons	6,907 tons	0 tons	0 tons	(4,991) tons
Changes due to emission allowance transactions	purchase, emission allowance quantity	1,300 tons	12,600 tons	16,661 tons	0 tons	0 tons	30,561 tons
Emission allowance quantity	Sale, Emission allowances quantity	(14,628) tons	(11,170) tons	(9,754) tons	0 tons	0 tons	(35,552) tons
Borrowings, Emission allowance quantity		7,585 tons	(7,585) tons	0 tons	0 tons	0 tons	0 tons
Balance carried forward, Emission allowances quantity		38,220 tons	30,553 tons	34,431 tons	48,534 tons	0 tons	151,738 tons
Carried forward to the next period, Emission allowance quantity		(30,553) tons	(34,431) tons	(48,534) tons	0 tons	0 tons	(113,518) tons
End of period, emission allowance quantity		0 tons	0 tons	0 tons	616,618 tons	568,084 tons	1,184,702 tons

Changes in the book value of greenhouse gas emission allowances

(Unit: KRW one thousand)

		2021	2022	2023	2024	2025	Total planned period
Allocation, Emission allowances		0	0	0	0	0	0
Allocation, Emission allowances	Free allocation, emission allowance	0	0	0	0	0	0
	Allocation cancellation and Additional allocation, Emission allowances	0	0	0	0	0	0
	Changes due to business division sale, Emission allowances	0	0	0	0	0	0
Emission, Emission allowances		(270,895)	0	0	0	0	(270,895)
Emission, Emission allowances	Government expenditure, Emission allowances	(270,895)	0	0	0	0	(270,895)
Changes due to emission allowance trading, Emission allowance		45,025	446,796	209,583	0	0	701,404
Changes due to emission allowance transactions	purchase, Emission allowances	45,025	446,796	209,583	0	0	701,404
Emission allowances	Sale, Emission allowances	0	0	0	0	0	0
Borrowings, Emission allowance quantity		270,895	(270,895)	0	0	0	0
Carried forward from previous period, Emission allowances		0	45,025	220,926	430,509	0	696,460
Carried forward to the next period, emission allowances		(45,025)	(220,926)	(430,509)	0	0	(696,460)
End of period, Emission allowances		0	0	0	430,509	0	430,509

Changes in the quantity of emission allowance assets,

Current period

	Disclosure amount
Beginning balance of emissions allowance quantity, Emissions allowance assets	22,976 tons
Purchased emissions allowance quantity, Emissions allowance assets	0 tons
Ending emissions allowance quantity, Emissions allowance assets	22,976 tons

Previous period

	Disclosure amount
Beginning balance of emissions allowance quantity, Emissions allowance assets	6,315 tons
Purchased emissions allowance quantity, Emissions allowance assets	16,661 tons
Ending emissions allowance quantity, Emissions allowance assets	22,976 tons

Changes in the amount of emissions allowance assets

Current period

(Unit: KRW one thousand)

	Emissions allowances
Beginning balance of current emissions allowances	430,509
Purchased emissions allowance, Emissions allowance assets	0
Ending balance of current emissions allowances	430,509

Previous period

(Unit: KRW one thousand)

	Emissions allowances
Beginning balance of current emissions allowances	220,926
Purchased emissions allowance, Emissions allowance assets	209,583
Ending balance of current emissions allowances	430,509

Changes in the quantity of emission allowance liabilities,

Current period

	Disclosure amount
Beginning balance of emissions allowance quantity, Emissions allowance liabilities	6,196 tons
Emission cost quantity, emission allowance liabilities	14,640 tons
End of period emission allowance quantity, emission allowance liabilities	20,836 tons

Previous period

	Disclosure amount
Beginning balance of emissions allowance quantity, Emissions allowance liabilities	7,585 tons
Emission cost quantity, emission allowance liabilities	(1,389) tons
End of period emission allowance quantity, emission allowance liabilities	6,196 tons

Changes in the amount of emissions allowance liabilities

Current period

(Unit: KRW one thousand)

	Emissions allowances
Beginning balance of current emissions allowance liabilities	75,353
Emission cost, emission allowance liabilities	248,403
Ending balance of current emissions liabilities	323,756

Previous period

(Unit: KRW one thousand)

	Emissions allowances
Beginning balance of current emissions allowance liabilities	210,984
Emission cost, emission allowance liabilities	(135,631)
Ending balance of current emissions liabilities	75,353

Confirmed and estimated greenhouse gas emissions

Current period

	Disclosure amount
Confirmed greenhouse gas emissions data	
Estimated greenhouse gas emissions	612,804 tCO ₂ -eq

Previous period

	Disclosure amount
Confirmed greenhouse gas emissions data	555,691 tCO ₂ -eq
Estimated greenhouse gas emissions	

20. Defined Benefit Liabilities (Assets)

The consolidated companies operate a defined benefit plan for the employees and have used the projected unit credit method for the actuarial valuation of the defined benefit liabilities.

Disclosure of net defined benefit liability (asset)

Current period

(Unit: KRW one thousand)

	Present value of defined benefit liabilities	External fund assets	Total net defined benefit liability (assets)
Beginning balance of net defined benefit liability (assets)	162,132,222	(205,841,126)	(43,708,904)
Current service cost, Defined benefit plan	23,327,657	0	23,327,657
Past service cost, Net defined benefit liability (assets)	2,309,994	0	2,309,994

Interest expense (income), Net defined benefit liability (assets)	6,296,277	(8,093,906)	(1,797,629)
Total remeasurement gains and losses, net defined benefit liabilities (assets)	2,370,574	(1,421,110)	949,464
Amount paid under the plan, net defined benefit liabilities (assets)	(12,608,014)	11,363,270	(1,244,744)
Contributions paid by the company to the plan, net defined benefit liabilities (assets)	0	(23,344,745)	(23,344,745)
Affiliates' transfers	(250,175)	(692,263)	(942,438)
Net defined benefit liabilities (assets) at the end of the period	183,578,535	(228,029,880)	(44,451,345)
Defined benefit obligations, present value			183,578,535
External fund assets, fair value			(228,029,880)

Previous period

(Unit: KRW one thousand)

	Present value of defined benefit liabilities	External fund assets	Total net defined benefit liability (assets)
Beginning balance of net defined benefit liability (assets)	127,954,661	(169,901,470)	(41,946,809)
Current service cost, Defined benefit plan	18,675,936	0	18,675,936
Past service cost, Net defined benefit liability (assets)	0	0	0
Interest expense (income), Net defined benefit liability (assets)	6,333,018	(8,478,119)	(2,145,101)
Total remeasurement gains and losses, net defined benefit liabilities (assets)	19,716,685	(118,746)	19,597,939
Amount paid under the plan, net defined benefit liabilities (assets)	(10,631,556)	9,043,261	(1,588,295)
Contributions paid by the company to the plan, net defined benefit liabilities (assets)	0	(35,768,000)	(35,768,000)
Affiliates' transfers	83,478	(618,052)	(534,574)
Net defined benefit liabilities (assets) at the end of the period	162,132,222	(205,841,126)	(43,708,904)
Defined benefit obligations, present value			162,132,222
External fund assets, fair value			(205,841,126)

Meanwhile, the plan assets as of the end of the reporting period consist of time deposits, etc.

Retirement benefit expenses included in profit or loss

Current period

(Unit: KRW one thousand)

	Disclosure amount
Current service cost, Defined benefit plan	23,327,657
Past service cost, Defined benefit plan	2,309,994
Interest cost, Defined benefit plan	6,296,277
Interest revenue, Defined benefit plan	(8,093,906)
Retirement benefit expense, Defined benefit plan	23,840,022

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Current service cost, Defined benefit plan	18,675,936
Past service cost, Defined benefit plan	0
Interest cost, Defined benefit plan	6,333,018
Interest revenue, Defined benefit plan	(8,478,119)
Retirement benefit expense, Defined benefit plan	16,530,835

Key assumptions used for actuarial valuation,

Current period

	Sub-scope	Upper scope
Actuarial assumption regarding the discount rate	0.0334	0.0418
Expected return on plan assets (percentage)	0.0334	0.0418
Actuarial assumption regarding future salary increase rate	0.0200	0.0720

Previous period

	Sub-scope	Upper scope
Actuarial assumption regarding the discount rate	0.0398	0.0491
Expected return on plan assets (percentage)	0.0398	0.0491
Actuarial assumption regarding future salary increase rate	0.0200	0.0781

Components of remeasurement elements of the defined benefit plan

Current period

(Unit: KRW one thousand)

	Disclosure amount
Actuarial losses (gains) arising from changes in demographic assumptions, Net defined benefit liability (assets)	(6,100,175)
Actuarial losses (gains) arising from changes in financial assumptions, Net defined benefit liability (assets)	4,176,840

Actuarial losses (gains) arising from experience adjustments, Net defined benefit liability (assets)	4,293,909
Return on external fund assets excluding amounts included in interest, Net defined benefit liability (assets)	(1,421,110)
Total remeasurement gains and losses, Net defined benefit liability (assets)	949,464

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Actuarial losses (gains) arising from changes in demographic assumptions, Net defined benefit liability (assets)	114,376
Actuarial losses (gains) arising from changes in financial assumptions, Net defined benefit liability (assets)	17,574,394
Actuarial losses (gains) arising from experience adjustments, Net defined benefit liability (assets)	2,027,915
Return on external fund assets excluding amounts included in interest, Net defined benefit liability (assets)	(118,746)
Total remeasurement gains and losses, Net defined benefit liability (assets)	19,597,939

Disclosure of sensitivity analysis for actuarial assumptions

Current period

(Unit: KRW one thousand)

	Actuarial assumption regarding the discount rate	Actuarial assumption regarding future salary increase rate
Possible increase rates within a reasonable range of actuarial assumptions	0.01	0.01
Increase (decrease) in the defined benefit liability due to possible increases within a reasonable range of actuarial assumptions	(12,241,366)	13,931,333
Possible decrease rates within a reasonable range of actuarial assumptions	0.01	0.01
Increase (decrease) in the defined benefit obligation due to possible decreases within a reasonable range of actuarial assumptions	13,968,527	(12,424,665)

Previous period

(Unit: KRW one thousand)

	Actuarial assumption regarding the discount rate	Actuarial assumption regarding future salary increase rate
Possible increase rates within a reasonable range of actuarial assumptions	0.01	0.01
Increase (decrease) in the defined benefit liability due to possible increases within a reasonable range of actuarial assumptions	(12,587,605)	14,673,980

Possible decrease rates within a reasonable range of actuarial assumptions	0.01	0.01
Increase (decrease) in the defined benefit obligation due to possible decreases within a reasonable range of actuarial assumptions	14,685,785	(12,807,557)

The above sensitivity analysis is based on the method of estimating the impact on the defined benefit obligation if significant actuarial assumptions change within a reasonable range at the reporting date. Since it is unlikely that changes in assumptions would occur independently of each other, this sensitivity analysis may not reflect the actual changes in the defined benefit obligation.

Disclosure of the maturity profile of the defined benefit obligation

Current period

(Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years, 10 years or less	Over 10 years, 20 years or less	Over 20 years	Total Subtotal
Estimated benefit payments expected to be made	27,850,575	20,591,853	68,575,473	100,867,482	227,540,306	126,254,575	571,680,264
Weighted defined benefit liabilities Average duration							7 year and 4 months

Previous period

(Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years, 10 years or less	Over 10 years, 20 years or less	Over 20 years	Total Subtotal
Estimated benefit payments expected to be made	20,461,858	17,797,030	56,030,808	82,361,702	266,033,577	411,724,032	854,409,007
Weighted defined benefit liabilities Average duration							9 years

Disclosure of expected contributions for the next annual reporting period

(Unit: KRW one thousand)

	Defined benefit plan with fully or partially funded assets
Estimated contributions expected to be paid during the next annual reporting period	22,796,463

Disclosure of defined contribution plan

Current period

(Unit: KRW one thousand)

	Disclosure amount
Retirement benefit expense, Defined contribution plan	500,688

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Retirement benefit expense, Defined contribution plan	514,306

21. Contract Liabilities

Details of contract balances

Current period

(Unit: KRW one thousand)

	Disclosure amount
Inventories	8,810,973
Contract liabilities	181,007,207

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Inventories	0
Contract liabilities	57,125,282

(Note 1) Inventories: The contract costs, which are contract assets of the consolidated companies, are included in inventories. The contract costs included in inventories consist of the costs related to technology transfer and product manufacturing activities performed to produce the products ordered by customers. These activities are required to be performed in advance to produce the products ordered by customers, but since they are not activities that transfer goods or services to the customer, they are not included in the performance obligation and are recognized as contract costs.

Changes in contract liabilities

Current period

(Unit: KRW one thousand)

	Assets and liabilities		Total assets and liabilities
	Liabilities		
	Contract liabilities		
	Refund liabilities	Unearned revenue	
Beginning contract liabilities	3,943,442	53,181,840	57,125,282
Recognition (reversal) of contract liabilities	1,000,336	122,881,589	123,881,925
Contract liabilities at the end of the period	4,943,778	176,063,429	181,007,207

Previous period

(Unit: KRW one thousand)

	Assets and liabilities		Total assets and liabilities
	Liabilities		
	Contract liabilities		
	Refund liabilities	Unearned revenue	
Beginning contract liabilities	10,670,184	149,255,756	159,925,940
Recognition (reversal) of contract liabilities	(6,726,742)	(96,073,916)	(102,800,658)

Contract liabilities at the end of the period	3,943,442	53,181,840	57,125,282

(Note 1) Refund liabilities: The consolidated companies recognize a contract liability for returns based on the expected return claims, which are estimated based on historical return experience for sold products. The assumptions applied in the calculation of the above contract liabilities are based on currently available information regarding expected returns during the return period for products sold, considering the current level of product sales and return conditions.

(Note 2) Unearned revenue This is an amount received from the customer for the contract with the customer to be performed over the period.

22. Provisions

Disclosure of other provisions for liabilities

Current period

(Unit: KRW one thousand)

		Disclosure amount
Current provisions for liabilities		40,798,567
Current provisions for liabilities	Current legal provisions for litigation	0
	Restructuring provisions	29,535,105
	Current provisions for sales warranties	5,939,880
	Current provisions for contributions	2,194,490
	Current provisions for loss-making contracts	2,328,208
	Current provisions for other provisions	800,884
Non-current portion of provisioning liabilities		6,699,669
Non-current portion of provisioning liabilities	Non-current legal provisions for litigation	5,957,148
	Non-current provisions for other provisions	742,521

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Current provisions for liabilities		12,476,761
Current provisions for liabilities	Current legal provisions for litigation	11,013,136
	Restructuring provisions	0
	Current provisions for sales warranties	0
	Current provisions for contributions	0
	Current provisions for loss-making contracts	0
	Current provisions for other provisions	1,463,625
Non-current portion of provisioning liabilities		5,957,148
Non-current portion of provisioning liabilities	Non-current legal provisions for litigation	5,957,148
	Non-current provisions for other provisions	0

(Note 1) Current legal provisions for litigation: As a result of partial loss in the second trial of the patent infringement and damages lawsuit with Novartis AG, the loss amount was recognized as a provision, and it was paid during the current period (refer to Note 24).

(Note 2) Current provisions for restructuring: The consolidated companies announced a restructuring plan, including the relocation of the main business location of IDT Biologika Corporation, which created a constructive obligation. As a result, direct costs arising from the restructuring, including loss compensation to the lessor, were recognized as provisions.

- (Note 3) Current provisions for sales warranties: The consolidated companies have recognized expected warranty claims for products sold and services provided during the current period, based on past experience, and it is expected that costs will arise in the next period. The consolidated companies have estimated provisions based on currently available information related to the claims.
- (Note 4) Current provisions for contributions: The consolidated companies have a constructive obligation for additional contribution payments or the return of government subsidies as a result of past events, such as construction and energy use. The consolidated companies have estimated provisions based on currently available information related to the constructive obligation.
- (Note 5) Current provisions for loss-making contracts: The consolidated companies have recognized provisions for loss-making contracts, as they predict that the unavoidable costs required to fulfill contractual obligations will exceed the expected economic benefits to be obtained from those contracts. The excess amount has been estimated and recognized as provisions for loss-making contracts.
- (Note 6) Non-current legal provisions for litigation: Provisions have been recognized based on the best estimate regarding the ongoing humidifier disinfectant lawsuit.

23. Risk Management and Derivative Instruments

The consolidated companies are exposed to certain risks in connection with their ongoing business operations. The main risks managed using derivatives are foreign exchange risk, commodity price risk, and interest rate risk. The risk management strategy and methods of the consolidated companies are described in Note 34.

Risk management activities

The consolidated companies are exposed to the foreign currency risk for some of their sales and purchases in international transactions. To mitigate such risk, the consolidated companies regularly monitor the net exposures in major currencies (the dollar, euro, and yen) based on projected sales and purchases over the next 12 months. The consolidated companies enter into foreign currency forward contracts to hedge against these exposures.

For business and sales purposes, the consolidated companies have not designated such currency forward contracts for hedging. Therefore, the fair value changes of all forward contracts are recognized in profit or loss for the current period.

Disclosure of derivative financial assets

Current period

(Unit: KRW one thousand)

	Financial Instruments		Total financial instruments
	Derivatives		
	Currency forward contracts	Option contracts	
		Written put options	
Current derivative financial assets	195	0	195
Non-current derivative assets	0	8,784,996	8,784,996

Previous period

(Unit: KRW one thousand)

	Financial Instruments		Total financial instruments
	Derivatives		
	Currency forward contracts	Option contracts	
		Written put options	
Current derivative financial assets	435,251	0	435,251
Non-current derivative assets	0	5,055,776	5,055,776

Disclosure of derivative financial liabilities

Current period

(Unit: KRW one thousand)

	Designation of derivative instruments for hedging purposes		
	For trading purposes		
	Financial instruments		Total financial instruments
	Derivatives		
	Currency forward contracts	Option contracts	
		Purchased call options	
Current derivative liabilities	5,191,791	429,063	5,620,854

Previous period

(Unit: KRW one thousand)

	Designation of derivative instruments for hedging purposes		
	For trading purposes		
	Financial instruments		Total financial instruments
	Derivatives		
	Currency forward contracts	Option contracts	
		Purchased call options	
Current derivative liabilities	110,856	0	110,856

Currency forward contracts

The consolidated company enters into derivative contracts for the purpose of hedging foreign exchange risk arising from foreign currency transactions.

Disclosure of currency forward contracts

Current period

(Unit: KRW one thousand)

	Financial instruments	
	Derivatives	
	Currency forward contracts	
	Buy	Sell
Counterparties, derivative financial instruments		Hana Bank, etc.
Contract amount, Derivative financial instruments		214,383,971
Fair value, Derivative financial instruments		(5,191,596)

Previous period

(Unit: KRW one thousand)

	Financial instruments	
	Derivatives	
	Currency forward contracts	
	Buy	Sell
Counterparties, derivative financial instruments	Hana Bank, etc.	Hana Bank, etc.
Contract amount, Derivative financial instruments	42,276,270	17,052,646

Fair value, Derivative financial instruments	172,896	151,499

Disclosure of option contracts

Current period

(Unit: KRW one thousand)

	Total measurement			
	Fair value			
	Financial instruments			Total financial instruments
	Derivatives			
	Option contracts			
	Written put options		Purchased call options	
	Investments in shares of SK chemicals Daejeong Co., Ltd.	Investments in shares of HDC Polyall Co., Ltd.	Preferred shares of Tiumbio Co., Ltd.	
Non-current derivative assets	1,085,246	7,699,750		8,784,996
Current derivative liabilities			429,063	429,063

Previous period

(Unit: KRW one thousand)

	Total measurement			
	Fair value			
	Financial instruments			Total financial instruments
	Derivatives			
	Option contracts			
	Written put options		Purchased call options	
	Investments in shares of SK chemicals Daejeong Co., Ltd.	Investments in shares of HDC Polyall Co., Ltd.	Preferred shares of Tiumbio Co., Ltd.	
Non-current derivative assets	719,000	4,336,776		5,055,776
Current derivative liabilities			0	0

(Note 1) Investments in shares of SK chemicals Daejeong Co., Ltd. They are put options that allow the controlling company to sell its shares to Daejeong Chemicals & Metals Co., Ltd. at the specified price.

(Note 2) Investments in shares of HDC Polyall Co., Ltd. They are put options that allow the company to sell its shares to HDC Hyundai EP Co., Ltd. at the specified price.

(Note 3) Preferred shares of Tiumbio Co., Ltd. The consolidated company has an obligation to purchase convertible preferred shares at the specified price from a third party designated by Tiumbio Co., Ltd.

The consolidated companies are exposed to certain risks in connection with their ongoing business operations. The main risks managed using derivatives are the foreign exchange risk and the interest rate risk. The consolidated companies' risk management strategies and risk management methods are explained under Note 34 below.

24. Contingencies and Commitments

Disclosure of contingent liabilities related to legal disputes

(Unit: KRW one thousand)

	Classification of legal contingency liabilities												
	Lawsuit (Defendant)									Lawsuit (Plaintiff)			
	Indemnity claims 1	Indemnity claims 2	Indemnity claims 3	Indemnity claims 4	Claim for damages 1	Claim for damages 2	Patent infringement and damages claim 1	Patent infringement and damages claim	Claim for damages 3	Patent infringement and damages claim 2	Request for cancellation of corrective orders, etc. 1	Request for cancellation of corrective orders, etc. 2	Determination of unfair trade practices, etc. Lawsuit for cancellation request
Plaintiff, Lawsuit case	Korea Environmental Industry and Technology Institute	Korea Environmental Industry and Technology Institute	National Health Insurance Service	Republic of Korea	Kang Chan Ho and 295 others	Aekyung Industrial Co., Ltd.	Novartis AG	Wyeth LLC, Pfizer Korea	Korea Disease Control and Prevention Agency (KDCA)	Controlling company	Controlling company and 1 other	Controlling company and 1 other	SK bioscience
Defendant, Lawsuit case	Controlling company and 12 others	Controlling company and 12 others	Controlling company and 12 others	Controlling company and 19 others	Controlling company and 19 others	Controlling company	Controlling company	SK bioscience	SK bioscience Co., Ltd. 26 persons	Novartis AG	Fair Trade Commission	Fair Trade Commission	Trade Commission
Lawsuit amount	2,240,000	294,414	10,782,868	4,910,025	11,200,000	3,649,743	12,146,921	100,000	10	17,853,079	163,000	161,667	105,001
Lawsuit progress/status	1st trial in progress	1st trial in progress	1st trial in progress	1st trial in progress	1st trial in progress	2nd trial in progress	3rd trial in progress	3rd trial in progress	1st trial in progress	3rd trial in progress	Appeal after losing in the second trial	2nd trial in progress	1st trial in progress

(Note 1) Indemnity claims: As of the end of the current term, part of the land owned by the controlling company has been temporarily seized in connection with the litigation above.

(Note 2) Claim for indemnity / Claim for damages 1 / Claim for damages 2: This is a civil lawsuit against the controlling company related to damages caused by a humidifier disinfectant, etc., and a number of other civil lawsuits are in progress.

(Note 3) Patent infringement prohibition As of the end of the current period, the lawsuit was concluded with SK bioscience's victory in the second trial. However, in January 2025, the plaintiff appealed the second trial verdict to the Supreme Court.

(Note 4) Patent infringement prohibition/damages claim 3 This is a lawsuit with the consolidated company as the defendant, and the lawsuit amount may change during the course of the proceedings.

The outcome of ongoing litigation as of the end of the current period cannot be predicted at this time, and a provisioning liability has been recognized based on the best estimate considering the likelihood of winning or losing the case (refer to Note 22).

Other lawsuits

The parent company is under criminal trial for violating the Special Act on Remedy for Damage Caused by Humidifier Disinfectants, as it submitted an opinion contrary to the facts in response to the Ministry of Environment's request for data submission.

The subsidiary, SK Multi-Utility, has been indicted by the Ulsan District Prosecutor's Office for violating the Serious Accident Punishment Act.

Disclosure of project financing agreements

(Unit: KRW one million)

	Types of agreement
	Loan agreement
	Project financing agreement
Description of agreements	The consolidated companies have entered into a project financing common terms agreement with KB Kookmin Bank for the Ulsan integrated facility project.
Total loan agreement amount	530,000
The non-current portion of non-current borrowings from financial institutions (excluding bonds) that is replaced by liquidity	504,000

Creation of a pledge and transfer collateral agreement related to the project financing agreement

(Unit: KRW one million)

	First priority insurance collateral right contract	First priority deposit collateral right contract	Debt assignment collateral contract	Movable property assignment collateral contract	Creation of pledge on shares and shareholder loans in lieu of capital stock	Agreement on the payment of shareholder loans in lieu of capital stock
Description of agreements	A first-priority pledge on the insurance claims and other receivables of the consolidated companies, with the maximum claim amount set at 120% of 530 billion KRW.	A first-priority pledge on the deposit receivables deposited or to be deposited in the consolidated companies' deposit accounts, with the maximum claim amount set at 120% of 530 billion KRW.	The consolidated companies have assigned all receivables related to the below transfer target contracts, which they have already acquired or will acquire in the future, to the lenders within the scope of the secured debt. * Construction subcontracting contract * Other contracts that the consolidated companies will enter into with third parties related to this project, where the consolidated companies are scheduled to receive payments or acquire property rights under certain conditions stipulated in the contract, and which the lenders require to be included in the transfer target contracts	A transfer collateral agreement for various facilities (including existing equipment, all facilities related to the existing business, and the completed portion of buildings under construction on the business site, but not limited to these), works, machinery, equipment, and other facilities installed or to be installed on the business site	The parent company has established a pledge on all the shares and shareholder loans in lieu of capital stock of SK Multi-Utility Co., Ltd., which the parent company currently holds or will hold in the future, with a limit on the loan agreement amount (530 billion KRW) set at 120%.	In accordance with the Project Financing agreement, the parent company has entered into an agreement to contribute an additional 119.1 billion KRW or provide subordinated loans as shareholder loans by June 30, 2025. The parent company has also committed to completing all the project facilities at its own responsibility and cost by the scheduled completion date. Furthermore, the parent company will operate the project facilities within the limits of the pre-approved annual operating budget. In the event of a capital shortfall at SK Multi-Utility Co., Ltd., the parent company has committed to depositing the entire shortfall with the borrower.
Financial assets provided as collateral for liabilities or contingent liabilities		6,169				

Technology transfer agreement and joint development

	Types of agreement	
	Technology transfer agreement and joint development	
	Counterparty to the transaction	
	Sanofi Pasteur Inc., USA	Sanofi
Description of agreements	On March 19, 2014, a contract was signed with Sanofi Pasteur Inc. in the USA for the joint development and commercialization of a next-generation pneumococcal conjugate vaccine. The scale of the contract includes an initial technology fee and milestone payments at various stages of development.	An additional contract was signed with Sanofi on December 20, 2024, to further advance the development of a next-generation pneumococcal vaccine, beyond the aforementioned contract. The total contract value includes an advance payment and milestone payments at various stages.
Contract value (USD) [USD, date]	45,000,000	

Contract value (EUR) [EUR, date]		350,000,000
Revenue recognition method	Revenue is recognized when the rights to receive consideration are met according to each stage of progress. Currently, clinical phase 3 is ongoing.	

Contract Manufacturing Organization (CMO) and Contract Development & Manufacturing Organization (CDMO) contracts

(Unit: KRW one million)

	Types of agreement	
	COVID-19 vaccine CDMO contract	Exclusive contract for the COVID-19 vaccine
	Counterparty to the transaction	
	Novavax	
Description of agreements	On August 11, 2020, an agreement was signed for the COVID-19 vaccine CDMO (Contract Development and Manufacturing Organization) services	On February 12, 2021, an agreement was signed granting the exclusive rights to develop, produce, and sell the COVID-19 vaccine developed by Novavax in South Korea.
Revenue recognition method	Revenue is recognized over time by allocating it until the obligations related to the contract are fulfilled.	
Contract modification details	A modified agreement was signed during the current period to terminate the existing CMO and CDMO contracts with Novavax.	During the current period, the existing agreement was amended to grant exclusive rights to develop, produce, and sell the COVID-19 vaccine (including variant antigens) developed by Novavax within the Republic of Korea until February 12, 2029, and non-exclusive rights for Thailand and Vietnam until June 30, 2028.

Disclosure of land purchase rights

	Types of agreement	
	Land purchase rights	
	Counterparty to the transaction	
	HDC Polyall Co., Ltd. and Toray Advanced Materials Korea Inc.	SK Chemicals Daejeong Co., Ltd.

Description of agreements	HDC Polyall Co., Ltd. and Toray Advanced Materials Korea Inc. The subsidiary acquired from the consolidated company The right to purchase land in the event of relocating a business or discontinuing operations.	The controlling company holds the right to purchase the land of SK Chemicals Daejeong Co., Ltd. if it exercises the put option on its shares of SK Chemicals Daejeong Co., Ltd. or if SK Chemicals Daejeong Co., Ltd. closes its business.

Agreement for the acquisition of shares in a subsidiary

	Types of agreement
	Agreement for the transfer of the obligation to pay registered capital
	Counterparty to the transaction
	Shuye Environmental Protection Technology Co., Ltd.
Description of agreements	The controlling company has agreed to transfer its obligation to pay the registered capital of its subsidiary Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd., to Shuye Environmental Protection Technology Co., Ltd.
Method of performing the agreement	The obligation to pay the transferred registered capital will be fulfilled through 1/2 of the relevant patents and utility model rights held by Shuye Environmental Protection Technology Co., Ltd.
Ownership percentage after fulfilling the agreement	After the payment, Shuye Environmental Protection Technology Co., Ltd. will acquire up to 44.9% of the shares in Shuye-SK environmental protection materials (Shantou) Co., Ltd. However, the ownership percentage may change depending on the terms of the agreement.

Sales contract for land

	Types of agreement
	Land sales contract
	Counterparty to the transaction
	Incheon Free Economic Zone
Description of agreements	On December 27, 2021, a sales contract was signed for land located in Songdo-dong, Yeonsu-gu, Incheon, for the purpose of constructing a research facility.
Terms of contract cancellation and amendments	The facility construction plan and necessary procedures, such as obtaining usage permits, must be completed within a certain period from the date of the sales contract. If these obligations are not fulfilled, the sales contract may be canceled.

The consolidated company entered into a construction contract with SK ecoplant Co., Ltd. on February 17, 2023, for the Incheon Songdo Global R&PD Center.

Joint and several liability for debt repayment

	All related parties
	Controlling company
	SK Discovery Co., Ltd.
Regulatory basis for joint and several liability for repayment	Article 530-9, Paragraph 1 of the Commercial Act
Debts subject to joint and several liability for repayment	The existing debts of the parent company and the surviving company, SK discovery Co., Ltd., that arose before the effective date of the spin-off, December 1, 2017.

Fair Trade Commission's corrective actions

The Fair Trade Commission determined that an internet article related to the humidifier disinfectant, published before the spin-off of the parent company, violated the Act on Fair Labeling and Advertising. As a result, corrective measures were taken, a fine was imposed, and the case was referred to the prosecution. The parent company is required to jointly fulfill the corrective measures and fine payment order issued by the Fair Trade Commission, together with the surviving company, SK discovery Co., Ltd.

Disclosure of agreements

(Unit: KRW one million)

	Types of agreement									
	Loan agreement									
	Agreements related to credit limits, etc.		Foreign currency borrowing agreement		Trade finance and other opening agreements		Derivative financial instrument margin exemption limit agreement		Performance guarantee	
	Counterparty to the transaction									
	Hana Bank, etc.	Seoul Guarantee Insurance, etc.	Hana Bank, etc.	Seoul Guarantee Insurance, etc.	Hana Bank, etc.	Seoul Guarantee Insurance, etc.	Hana Bank, etc.	Seoul Guarantee Insurance, etc.	Hana Bank, etc.	Seoul Guarantee Insurance, etc.
Total loan agreement amount	1,086,700						39,000			8,208
Total loan agreement amount (CNY) [CNY, million]			150							
Total loan agreement amount (USD) [USD, million]			7.0		120.0		349.5			26.0
Total loan agreement amount (EUR) [EUR, million]			74.0		46.8					

25. Related Parties

A. As of the end of the current period, the details of the consolidated companies' related parties are as follows.

Classification	Name of related parties
Controlling company	SK Discovery Co., Ltd.
Affiliates and joint ventures	JSI Co., Ltd., Entis Co., Ltd., HDC Polyall Co., Ltd.
Others	Subsidiaries and affiliates of SK discovery Co., Ltd., affiliates of SK corporate group, etc. (Note 1), TiumBio Co., Ltd. (Note 2)

(Note 1) The Fair Trade Commission-designated large business group affiliates are considered related parties based on the substantive relationship as defined in Paragraph 10 of K-IFRS 1024

(Note 2) During the previous period, the company acquired shares in Tiumbio Co., Ltd. and, as the parent company holds the right to appoint Directors, it has significant influence and is therefore included as another related party.

Current period

(Unit: KRW one thousand)

	All related parties																	All related parties Total
	Related parties																	
	Controlling company	Affiliates			Other related parties													
	SK Discovery (Note)	Entis Co., Ltd.	JSI Co., Ltd.	HDC Polyall Co., Ltd.	SK gas Co., Ltd.	SK plasma Co., Ltd.	SK advanced Co., Ltd.	Huvis Co., Ltd.	SK ecoplant Ltd.	SK ecoengineering Co., Ltd.	SK networks Co., Ltd.	SK NETWORKS HONGKONG	SK Energy Co., Ltd.	SK geo Centric Co., Ltd.	SK Co., Ltd.	SK hynix Co., Ltd.	Happy Narae Co., Ltd.	Others
Sales of goods Revenue from the sale of goods, Related party transactions	251,051	1,976,246	158,760	8,857,217	1,069,242	2,103,721	5,030,855	398,400	0	238,933	4,418,590	0	18,850,136	0	0	0	0	4,995,995
Other Income and asset sales, Related party transactions	443,471	5,194,172	129,588	0	28,396	953,359	39,791	0	0	417,868	0	0	25,507,048	0	0	0	0	51,179,810
Purchase of goods, Related party transactions	0	0	82,596	0	39,033,936	0	7,158,466	7,090,141	0	0	13,130,285	22,436,024	0	2,948,095	0	0	1,223,173	799,280
Other expenses and capital expenditures, Related party transactions	1,421,232	2,704	77,127	0	6,193,338	3,009	262,434	0	96,069,734	134,084,147	141,195	0	534,352	0	21,335,902	27,800	8,825,635	81,391,676

Previous period

(Unit: KRW one thousand)

	All related parties																		All related parties Total
	Related parties																		
	Controlling company	Affiliates			Other related parties														
	SK Discovery (Note)	Entis Co., Ltd.	JSI Co., Ltd.	HDC Polyall Co., Ltd.	SK gas Co., Ltd.	SK plasma Co., Ltd.	SK advanced Co., Ltd.	Huvis Co., Ltd.	SK ecoplant Ltd.	SK ecoengineering Co., Ltd.	SK networks Co., Ltd.	SK NETWORKS HONGKONG	SK Energy Co., Ltd.	SK geo Centric Co., Ltd.	SK Co., Ltd.	SK hynix Co., Ltd.	Happy Narae Co., Ltd.	Others	
Sales of goods Revenue from the sale of goods, Related party transactions	31,818	1,661,857	184,240	10,210,258	351,960	3,029,323	4,212,839	558,924	0	150,322	12,283,871	0	27,096,647	0	0	898,088	0	3,733,370	
Other Income and asset sales, Related party transactions	509,321	4,866,953	124,458	0	0	421,576	746,425	0	0	141,477	0	0	0	0	0	0	0	163	
Purchase of goods, Related party transactions	0	0	88,440	0	6,709,690	0	8,048,471	14,815,138	0	0	10,897,571	18,396,661	0	4,129,688	0	0	1,748,479	343,856	
Other expenses and capital expenditures, Related party transactions	1,421,634	429	87,014	0	3,495,417	15,251	359,801	0	22,157,967	221,460,600	136,882	0	2,366,345	0	14,214,426	9,399	8,432,890	12,847,038	

(Note 1) Current period - Other income and asset sales, related party transactions/Other expenses and capital expenditures, related party transactions: Other income and other expenses include the exchange transactions of inventory assets under the LNG volume exchange contract.

Disclosure of related party transactions _ Acquisition of tangible assets

Current period

(Unit: KRW one thousand)

	All related parties
	Other related parties
	SK ecoengineering Co., Ltd., etc.
Purchase of real estate and other assets, related party transactions	244,050,740

Previous period

(Unit: KRW one thousand)

	All related parties
	Other related parties
	SK ecoengineering Co., Ltd., etc.
Purchase of real estate and other assets, related party transactions	248,593,566

Disclosure of related party transactions _ construction contracts

Previous period

(Unit: KRW one million)

	All related parties
	Other related parties
	SK ecoplant Co., Ltd.
Description of related party transactions	A construction contract was signed with SK ecoplant Co., Ltd. for the Incheon Songdo Global R&PD Center.
Agreements entered into by the company, related party transactions	250,514

Disclosure of the receivable and payable balances related to related party transactions

Current period

(Unit: KRW one thousand)

	All related parties																		All related parties Total
	Related parties																		
	Controlling company	Affiliates			Other related parties														
	SK Discovery Ltd.	Entis Co., Ltd.	JSI Co., Ltd.	HDC Polyall Co., Ltd.	SK gas Co., Ltd.	SK plasma Co., Ltd.	SK advanced Co., Ltd.	Huvis Co., Ltd.	SK ecoplant Ltd.	SK ecoengineering Co., Ltd.	SK networks Co., Ltd.	SK NETWORKS HONGKONG	SK Energy Co., Ltd.	SK geo Centric Co., Ltd.	SK Co., Ltd.	SK hynix Co., Ltd.	Happy Narae Co., Ltd.	Others	
Trade receivables Related party transactions	35,000	184,898	0	870,465	34,037	117,223	526,877	97,152	0	19,412	72,606	0	2,478,218	0	0		0	947,371	5,383,259
Other receivables Related party transactions	30,195	871,675	2,440,000	0	831,911	171,969	0	0	164,426	21,142	0	428,029	6,666,947	0	0		0	0	11,626,294
Trade payables, Related party transactions	0	0	12,778	0	619,724	0	438,187	0	0	0	1,556,203	3,098,484	0	197,851	0		54,293	0	5,977,520
Other payables, Related party transactions	225,999	0	8,762	0	1,543,115	305,269	2,733,875	0	5,077,681	5,668,266	0	0	256,450	0	3,323,735		913,289	1,504,354	21,560,795

Previous period

(Unit: KRW one thousand)

	All related parties																		All related parties Total
	Related parties																		
	Controlling company	Affiliates				Other related parties													
	SK Discovery Ltd.	Entis Co., Ltd.	JSI Co., Ltd.	HDC Polyall Co., Ltd.	SK gas Co., Ltd.	SK plasma Co., Ltd.	SK advanced Co., Ltd.	Huvis Co., Ltd.	SK ecoplant Ltd.	SK ecoengineering Co., Ltd.	SK networks Co., Ltd.	SK NETWORKS HONGKONG	SK Energy Co., Ltd.	SK geo Centric Co., Ltd.	SK Co., Ltd.	SK hynix Co., Ltd.	Happy Narae Co., Ltd.	Others	
Trade receivables Related party transactions	35,000	264,945	0	1,161,838	32,263	87,315	475,938	91,520	0	12,252	785,678	0	1,841,836	0	0	0	0	677,186	5,465,771
Other receivables Related party transactions	53,388	1,000,174	3,040,000	0	765,252	183,098	0	0	164,426	21,981	0	208,843	0	0	0	0	0	0	5,437,162
Trade payables, Related party transactions	0	0	12,144	0	423,297	0	0	5,325,863	0	0	1,148,477	1,570,700	0	117,658	0	0	30,638	331,069	8,959,846
Other payables, Related party transactions	270,921	0	6,699	0	4,054,341	400,325	2,848,072	0	8,855,000	184,150	0	0	803,010	0	2,402,285	1,430	955,231	1,948,822	22,730,286

Capital expenditure agreement amount with related parties

Current period

(Unit: KRW one thousand)

	All related parties	
	Related parties	
	Other related parties	
	SK ecoengineering Co., Ltd.	SK ecoplant Co., Ltd.
Outstanding agreement balance entered into by the company, related party transactions	51,000,000	130,922,000

Previous period

(Unit: KRW one thousand)

	All related parties	
	Related parties	
	Other related parties	
	SK ecoengineering Co., Ltd.	SK ecoplant Co., Ltd.
Outstanding agreement balance entered into by the company, related party transactions	167,718,600	226,633,000

(Note 1) SK engineering Co., Ltd. / SK ecoplant Co., Ltd. It is an agreed amount in accordance with the tangible asset construction contract.

Disclosure of related party financing transactions _ capital contributions

Previous period

(Unit: KRW one thousand)

	All related parties
	Related parties
	Other related parties
	Tiumbio Co., Ltd.
Cash capital contributions, capital contribution payments	19,999,995

Disclosure of related party financing transactions

Current period

(Unit: KRW one thousand)

	All related parties
	Related parties
	Affiliates
	JSI Co., Ltd.
Loan transactions, beginning balance	3,040,000
Loan transactions, Recoveries	(600,000)
Loan transactions, ending balance	2,440,000

Allowance for doubtful accounts on the receivable balance from related party transactions	(2,440,000)

Previous period

(Unit: KRW one thousand)

	All related parties
	Related parties
	Affiliates
	JSI Co., Ltd.
Loan transactions, beginning balance	3,400,000
Loan transactions, Recoveries	(360,000)
Loan transactions, ending balance	3,040,000
Allowance for doubtful accounts on the receivable balance from related party transactions	(3,040,000)

Dividends paid to related parties

Current period

(Unit: KRW one thousand)

	All related parties
	Related parties
	Controlling company
	SK Discovery Co., Ltd.
Dividends recognized as distributions to owners	4,586,985

Previous period

(Unit: KRW one thousand)

	All related parties
	Related parties
	Controlling company
	SK Discovery Co., Ltd.
Dividends recognized as distributions to owners	10,585,349

Agreements entered into with related parties

	All related parties
	Related parties
	Other related parties
	SK Multi-Utility
SK Multi-Utility Co., Ltd. and SK Gas. arising from the LNG supply agreement	Description of the details of guarantees provided or received for the receivables and payables related to the related party transactions with the subsidiary, Guarantee of payment for the unpaid fuel costs and all related liabilities between International, PTE., Ltd. and the company

Agreements entered into by the company, related party transactions	The parent company has entered into agreements for shareholder loans in lieu of capital stock and collateral provision for SK Multi-Utility Co., Ltd.'s Project Financing agreement (refer to Note 24)

Compensation for key management personnel

Current period

(Unit: KRW one thousand)

	Disclosure amount
Compensation for key management personnel, Short-term employee benefits	4,926,354
Compensation for key management personnel, Retirement benefits	1,281,204
Compensation for key management personnel	6,207,558

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Compensation for key management personnel, Short-term employee benefits	11,960,069
Compensation for key management personnel, Retirement benefits	3,036,089
Compensation for key management personnel	14,996,158

The key senior management of the consolidated companies consists of the Directors who are registered executives and the members of the Audit Committee.

26 Equity – Capital Stock and Capital Surplus

Disclosure of the classification of shares

Current period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks
Authorized number of shares (unit: shares)	40,000,000	10,000,000
Par value per share (unit: KRW/share)	5,000	5,000
Total number of issued shares (unit: shares)	17,253,783	2,115,429
Capital	88,216,360	10,577,145

Previous period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks
Authorized number of shares (unit: shares)	40,000,000	10,000,000
Par value per share (unit: KRW/share)	5,000	5,000
Total number of issued shares (unit: shares)	17,253,783	2,115,429
Capital	88,216,360	10,577,145

(Note 1) Capital stock: As a result of the cancellation of 389,489 treasury shares during the previous period, the capital stock and the total par value of the issued shares of the parent company as of the end of the current period do not match.

Disclosure of the details of consolidated capital surplus

Current period

(Unit: KRW one thousand)

		Disclosure amount
Capital surplus		1,240,117,261
Capital surplus	Paid-in capital in excess of par value	237,858,538
	Other capital surplus	1,002,258,723

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Capital surplus		1,212,422,484
Capital surplus	Paid-in capital in excess of par value	237,858,538
	Other capital surplus	974,563,946

(Note 1) Other capital surplus: During the current period, the subsidiary, SK bioscience Co., Ltd., participated in a paid-in capital increase of IDT Biologika GmbH, resulting in a change in its ownership percentage. The capital transaction gains and losses related to this participation have been recognized as other capital surplus.

26. Equity – Other Components of Equity

Components of other equity

Current period

(Unit: KRW one thousand)

		Disclosure amount
Components of other equity		(21,644,726)
Components of other equity	Treasury stocks	(8,921,443)
	Stock options	1,532,450
	Other capital adjustments	(14,255,733)

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Components of other equity		(21,644,726)
Components of other equity	Treasury stocks	(8,921,443)
	Stock options	1,532,450
	Other capital adjustments	(14,255,733)

(Note 1) Treasury shares: The controlling company acquired the shares of the controlling company at the market price following the acquisition of fractional shares and the exercise of appraisal rights by the shareholders.

Disclosure of treasury shares

	Common stocks	Preferred stocks
The number of shares owned by the company, its subsidiaries, or affiliates out of the total issued shares	30,857	148,133

26. Equity – Share Options

Disclosure of the terms of share-based payment agreements

(Unit: KRW)

	Share-based payment agreements															Share-based payment agreements Total
	2018.03.06			2018.03.26 (1st)			2018.03.26 (2nd)			2019.03.25 (1st)			2019.03.25 (2nd)			
	Scope		Total scope	Scope		Total scope	Scope		Total scope	Scope		Total scope	Scope		Total scope	
	Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		
Share-based payment agreements grant date			2018.03.06			2018.03.26			2018.03.26			2019.03.25			2019.03.25	
Number of shares to be issued under options and stock sale agreements (unit: shares)			29,988			22,491			22,492			22,491			22,492	
Exercise period, Stock options	2020-03-07	2025-03-06		2020-03-27	2025-03-26		2021-03-27	2025-03-26		2021-03-26	2026-03-25		2022-03-26	2026-03-25		
Exercise price, Granted stock options (Unit: KRW, stocks)			71,785			72,009			77,724			47,749			51,517	
Weighted average fair value as of the measurement date Granted stock options (Unit: KRW, stocks)			15,864			16,226			13,717			9,184			7,856	
Weighted average remaining expiration period of outstanding stock options															7 months	

(Note 1) Number of shares to be issued under option and stock sale agreements / Exercise price, granted stock options / Weighted average fair value as of the measurement date, granted stock options: Due to a stock split prior to the previous period, the number of shares to be issued and the exercise price were adjusted, and the fair value on the grant date was revised accordingly.

Disclosure of the fair value of goods or services received, indirectly measured based on the fair value of stock options granted during the accounting period.

(Unit: KRW)

	Share-based payment agreements				
	Portion granted on 2018.03.06	Portion granted on 2018.03.26 (Primary)	Portion granted on 2018.03.26 (Secondary)	Portion granted on 2019.03.25 (Primary)	Portion granted on 2019.03.25 (Secondary)
	Valuation method				
	Binomial model				
Grant date of the share-based payment agreement	2018.03.06	2018.03.26	2018.03.26	2019.03.25	2019.03.25
Weighted average stock price, granted stock options	69,667	70,000	70,000	45,267	45,267
Exercise price, Granted stock options	71,785	72,009	77,724	47,749	51,517

Expected stock price volatility, Granted stock options	0.1507	0.1575	0.1575	0.1837	0.1837
Risk-free interest rate, Stock options	0.0266	0.0257	0.0257	0.0192	0.0192

(Note 1) Weighted average stock price, granted stock options / Exercise price, granted stock options: Due to a stock split prior to the previous period, the exercise price was adjusted, and the stock price on the grant date was revised accordingly.

Disclosure of the number of stock options and the weighted average exercise price

(Unit: KRW one thousand)

	2018.03.06	2018.03.26 (1st)	2018.03.26 (2nd)	2019.03.25 (1st)	2019.03.25 (2nd)	Share-based payment agreements Total
Grant date of the share-based payment agreement	2018.03.06	2018.03.26	2018.03.26	2019.03.25	2019.03.25	
Number of outstanding stock options under the share- based payment agreement at the beginning of the period (unit: shares)	29,988	22,491	22,492	22,491	22,492	119,954
Number of stock options changed under the share- based payment agreement (unit: shares)	0	0	0	0	0	0
Number of outstanding stock options under the share- based payment agreement at the end of the period (unit: shares)	29,988	22,491	22,492	22,491	22,492	119,954
Beginning stock options	475,721	364,940	308,530	206,567	176,691	1,532,449
Changed stock options under the share-based payment agreement	0	0	0	0	0	0
Ending stock options	475,721	364,940	308,530	206,567	176,691	1,532,449

(Note 1) Due to a stock split prior to the previous period, the number of shares to be issued was adjusted.

26. Equity – Accumulated Other Comprehensive Income

Disclosure of the breakdown of other comprehensive income by item

Current period

(Unit: KRW one thousand)

		Disclosure amount
Accumulated other comprehensive income		22,397,326
Accumulated other comprehensive income	Cash flow hedge reserve	228,244
	Other comprehensive income - impairment reserve for financial assets measured at fair value	4,337,202
	Impairment reserve for gains and losses on investments in equity instruments	346,559
	Translation-related foreign exchange reserve	17,485,321

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Accumulated other comprehensive income		(37,377,778)
Accumulated other comprehensive income	Cash flow hedge reserve	228,244
	Other comprehensive income - impairment reserve for financial assets measured at fair value	(37,312,223)
	Impairment reserve for gains and losses on investments in equity instruments	332,289
	Translation-related foreign exchange reserve	(626,088)

26. Equity – Retained Earnings

Details of consolidated retained earnings

Current period

(Unit: KRW one thousand)

		Disclosure amount
Retained earnings (losses)		861,029,873
Retained earnings (losses)	Earned surplus reserve;	14,258,666
	Unappropriated retained earnings (unsettled deficit)	846,771,207

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Retained earnings (losses)		866,510,778
Retained earnings (losses)	Earned surplus reserve;	12,868,504
	Unappropriated retained earnings (unsettled deficit)	853,642,274

(Note 1) Legal reserve: In accordance with the provisions of the Commercial Act, the controlling company is required to accumulate over 10% of the dividends in cash as an earnings surplus reserve for each settlement period until it reaches 50% of the capital, and this reserve can only be used to compensate for losses and for capitalization.

26. Equity – Dividends

Disclosure of dividends

Current period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks
Number of shares to receive dividends (unit: shares)	17,222,926	1,967,296
Dividend per common stock (unit: KRW/share)	750	
Dividend per preferred stock (unit: KRW/share)		800
Dividend rate per common stock	0.15	
Dividend rate per preferred stock		0.16

Dividends proposed or declared before the financial statement approval date, but not recognized as distributions to owners within the period	12,917,195	1,573,836

Previous period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks
Number of shares to receive dividends (unit: shares)	17,222,926	1,967,296
Dividend per common stock (unit: KRW/share)	250	
Dividend per preferred stock (unit: KRW/share)		300
Dividend rate per common stock	0.05	
Dividend rate per preferred stock		0.06
Dividends proposed or declared before the financial statement approval date, but not recognized as distributions to owners within the period	4,305,731	590,189

Disclosure of dividend payments

(Unit: KRW one thousand)

	Annual dividend	Interim dividend
Dividends recognized as distributions to owners	4,895,920	7,676,088

27 Operating Segments

The consolidated companies have 2 reporting divisions, which are strategic operating units. The strategic business units provide different products and services, and operate separately since the technologies and marketing strategies required for each business unit are different. The chief operating decision maker reviews the internal reporting data for each strategic business unit at least on a quarterly basis.

Disclosure of business segments

Current period

(Unit: KRW one thousand)

	Division				Segment total
	Reporting segment			Internal transactions, etc.	
	Green Chemicals Biz.	Life Science Biz.	Other segments		
Description of the types of products and services through which each reporting segment generates revenue	PET resin, DMT, highly functional PETG resin, polyester adhesive, utilities, etc.	Pharmaceuticals, medical devices, etc.			
Revenue (Sales)	1,473,610,421	624,775,140		(361,606,659)	1,736,778,902
Continuing operating income (loss)	87,094,981	(119,278,528)		(12,992,021)	(45,175,568)

Depreciation and amortization expenses	73,864,274	56,355,883		5,328,693	135,548,850
Assets	2,138,614,528	3,097,998,596	130,435,503		5,367,048,627
Non-current assets excluding the acquisition amount of financial instruments, deferred tax assets, retirement benefit assets, and rights arising from insurance contracts	1,377,224,617	1,210,223,146	103,991,384		2,691,439,147

Previous period

(Unit: KRW one thousand)

	Division				Segment total
	Reporting segment			Internal transactions, etc.	
	Green Chemicals Biz.	Life Science Biz.	Other segments		
Description of the types of products and services through which each reporting segment generates revenue	PET resin, DMT, highly functional PETG resin, polyester adhesive, utilities, etc.	Pharmaceuticals, medical devices, etc.			
Revenue (Sales)	1,285,198,836	745,554,322		(281,975,418)	1,748,777,740
Continuing operating income (loss)	52,005,352	19,531,325		11,765,810	83,302,487
Depreciation and amortization expenses	67,238,189	41,341,599		4,305,587	112,885,375
Assets	1,839,934,959	2,092,798,709	226,041,236		4,158,774,904
Non-current assets excluding the acquisition amount of financial instruments, deferred tax assets, retirement benefit assets, and rights arising from insurance contracts	1,180,733,192	426,023,062	101,696,626		1,708,452,880

(Note 1) Depreciation and amortization expenses: It is the sum of the depreciation for tangible assets, depreciation for investment real estate properties, depreciation for right-of-use assets, and the amortization cost for intangible assets.

(Note 2) Non-current assets excluding the acquisition amount of financial instruments, deferred tax assets, retirement benefit assets, and rights arising from insurance contracts: Included are the tangible assets, intangible assets, right-of-use assets, and the investment real estate properties.

As most liabilities are not managed on a reporting segment basis, liabilities by segment are not disclosed.

28 Revenue from Contracts with Customers

Disclosure of products and services

Current period

(Unit: KRW one thousand)

	Total for the entire company														
	Sales division										Significant adjustments				
	Green Chemicals Biz					Life Science Biz									
	Products and services				Total of products and services	Products and services				Total of products and services	Products and services				Total of products and services
	Product	Goods	Services	Others		Product	Goods	Services	Others		Product	Goods	Services	Others	
Revenue from contracts	1,385,990,291	30,153,643	51,851,612	5,614,875	1,473,610,421	302,286,063	199,125,442	112,852,892	10,510,743	624,775,140	(327,051,239)	(18,928,195)	(18,312,663)	2,685,438	(361,606,659)

Previous period

(Unit: KRW one thousand)

	Total for the entire company													
	Sales division									Significant adjustments				
	Green Chemicals Biz					Life Science Biz								
	Products and services				Total of products and services	Products and services				Total of products and services	Products and services			Total of products and services

	Product	Goods	Services	Others		Product	Goods	Services	Others		Product	Goods	Services	Others	
Revenue from contracts	1,240,106,172	9,137,893	29,394,661	6,560,110	1,285,196,836	314,421,174	186,736,643	128,399,625	115,996,880	745,554,322	(266,111,530)	(15,160,904)	(4,187,883)	3,484,899	(281,975,418)

Disclosure of products and services_Total

Current period

(Unit: KRW one thousand)

	Product	Goods	Services	Others	Total of products and services
Revenue from contracts	1,361,225,115	210,350,890	146,391,841	18,811,056	1,736,778,902

Previous period

(Unit: KRW one thousand)

	Product	Goods	Services	Others	Total of products and services
Revenue from contracts	1,288,415,816	180,713,632	153,606,403	126,041,889	1,748,777,740

Disclosure of regions

Current period
(thousand)

(Unit: KRW one thousand)

	Total for the entire company																							
	Sales division															Significant adjustments								
	Green Chemicals Biz							Life Science Biz																
	Region							Total by region	Region							Total by region	Region						Total by region	
	Country of the company's headquarters	Foreign country							Country of the company's headquarters	Foreign country							Country of the company's headquarters	Foreign country						
		China	Japan	Asia	United States of America	Europe	Other countries			China	Japan	Asia	United States of America	Europe	Other countries			China	Japan	Asia	United States of America	Europe		Other countries
Revenue from contracts with customers	400,715,521	284,442,862	122,210,492	131,760,518	205,304,114	299,293,384	29,883,530	1,473,610,421	452,624,566	7,764,984	0	3,929,340	27,528,707	131,627,328	1,300,215	624,775,140	(129,607,971)	(28,680,121)	0	0	(97,236,009)	(106,184,457)	101,899	(361,606,659)

Previous period

(Unit: KRW one thousand)

	Total for the entire company																							
	Sales division														Significant adjustments									
	Green Chemicals Biz							Life Science Biz																
	Region						Total by region	Region						Total by region	Region						Total by region			
	Country of the company's headquarters	Foreign country						Country of the company's headquarters	Foreign country						Country of the company's headquarters	Foreign country								
		China	Japan	Asia	United States of America	Europe	Other countries		China	Japan	Asia	United States of America	Europe	Other countries		China	Japan	Asia	United States of America	Europe	Other countries			
Revenue from contracts with customers	360,296,002	277,422,487	92,056,782	92,783,287	170,400,863	251,676,458	40,562,957	1,285,196,836	453,240,537	0	0	4,470,538	237,072,154	40,869,683	9,901,410	745,554,322	(90,847,705)	(27,138,520)	0	0	(66,766,235)	(97,110,277)	(112,681)	(281,975,418)

Disclosure of regions_Total

Current period

(Unit: KRW one thousand)

	Region							Total by region
	Country of headquarters location	Foreign country						
		China	Japan	Asia	United States of America	Europe	Other countries	
Revenue from contracts	723,732,116	263,527,725	122,210,492	135,689,858	135,596,812	324,736,255	31,285,644	1,736,778,902

Previous period

(Unit: KRW one thousand)

	Region		Total by region
	Country of headquarters location	Foreign country	

		China	Japan	Asia	United States of America	Europe	Other countries	
Revenue from contracts	722,688,834	250,283,967	92,056,782	97,253,825	340,706,782	195,435,864	50,351,686	1,748,777,740

Disclosure of the classification of revenue from contracts with customers

Current period

(Unit: KRW one thousand)

	Total for the entire company								
	Sales division						Significant adjustments		
	Green Chemicals Biz			Life Science Biz					
	Timing of transfer of goods or services		Total timing of transfer of goods or services	Timing of transfer of goods or services		Total timing of transfer of goods or services	Timing of transfer of goods or services		Total timing of transfer of goods or services
	Goods or services transferred at a point in time	Goods or services transferred over time		Goods or services transferred at a point in time	Goods or services transferred over time		Goods or services transferred at a point in time	Goods or services transferred over time	
Revenue from contracts	1,422,680,876	50,929,545	1,473,610,421	508,993,685	115,781,455	624,775,140	(349,911,128)	(11,695,531)	(361,606,659)

Previous period

(Unit: KRW one thousand)

	Total for the entire company								
	Sales division						Significant adjustments		
	Green Chemicals Biz			Life Science Biz					
	Timing of transfer of goods or services		Total timing of transfer of goods or services	Timing of transfer of goods or services		Total timing of transfer of goods or services	Timing of transfer of goods or services		Total timing of transfer of goods or services
	Goods or services transferred at a point in time	Goods or services transferred over time		Goods or services transferred at a point in time	Goods or services transferred over time		Goods or services transferred at a point in time	Goods or services transferred over time	
Revenue from contracts	1,256,766,678	28,432,158	1,285,198,836	615,173,897	130,380,425	745,554,322	(278,012,895)	(3,962,523)	(281,975,418)

Disclosure of the classification of revenue from contracts with customers_Total

Current period

(Unit: KRW one thousand)

	Goods or services transferred at a point in time	Goods or services transferred over time	Total timing of transfer of goods or services
Revenue from the contracts with customers	1,581,763,433	155,015,469	1,736,778,902

Previous period

(Unit: KRW one thousand)

	Goods or services transferred at a point in time	Goods or services transferred over time	Total timing of transfer of goods or services
Revenue from the contracts with customers	1,593,927,680	154,850,060	1,748,777,740

There are no customers that account for more than 10% of revenue during the current period.

Disclosure of major customers

Current period

(Unit: KRW one thousand)

	Major customer 1
Revenue (Sales)	0

Previous period

(Unit: KRW one thousand)

	Major customer 1
Revenue (Sales)	229,112,975

29 Operating Expenses – Expenses by Nature

Disclosure of classification of expenses by nature

Current period

(Unit: KRW one thousand)

	Disclosure amount
Decrease (increase) in finished goods and work in progress	(22,456,147)
Usage of raw materials and consumables	762,137,402
Cost of merchandise sold	134,469,646
Depreciation and amortization expenses	135,548,850
Labor cost	346,287,391
Logistics cost	60,050,399
Fees and expenses	116,443,820
Selling and marketing expenses	21,568,643
Other expenses	227,904,466
Total expenses by nature	1,781,954,470

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Decrease (increase) in finished goods and work in progress	65,451,621
Usage of raw materials and consumables	653,623,610
Cost of merchandise sold	150,870,263
Depreciation and amortization expenses	112,885,375
Labor cost	274,577,061
Logistics cost	64,437,749
Fees and expenses	80,741,924
Selling and marketing expenses	21,284,838
Other expenses	241,602,812
Total expenses by nature	1,665,475,253

(Note 1) Depreciation and amortization expenses: It is the sum of the depreciation for tangible assets, depreciation for investment real estate properties, depreciation for right-of-use assets, and the amortization cost for intangible assets.

29. Operating Expenses – Selling and Administrative Expenses

Disclosure of selling and administrative expenses

Current period

(Unit: KRW one thousand)

		Disclosure amount
Selling and administrative expenses		441,160,553
Selling and administrative expenses	Salaries and general and administrative expenses	114,044,902
	Retirement benefits and selling, general, and administrative expenses	11,027,661

	Welfare expenses and selling, general, and administrative expenses	21,390,569

	Travel and transportation expenses, and selling, general, and administrative expenses	10,285,160
	Communication expenses and selling, general, and administrative expenses	970,331
	Utilities expenses and selling, general, and administrative expenses	973,074
	Taxes and dues, and selling, general, and administrative expenses	2,581,726
	Rental expenses and selling, general, and administrative expenses	1,895,077
	Depreciation expenses and selling, general, and administrative expenses	7,759,652
	Repair expenses and selling, general, and administrative expenses	763,142
	Insurance premiums and selling, general, and administrative expenses	3,862,308
	Entertainment expenses and selling, general, and administrative expenses	2,037,283
	Transportation expenses and selling, general, and administrative expenses	29,581,698
	Supplies expenses and selling, general, and administrative expenses	1,539,849
	Vehicle maintenance expenses and selling, general, and administrative expenses	1,301,131
	Training expenses and selling, general, and administrative expenses	6,146,345
	Printing and publication expenses and selling, general, and administrative expenses	143,146
	Commission expenses and selling, general, and administrative expenses	62,677,158
	Research expenses and selling, general, and administrative expenses	117,124,805
	Advertising and promotion expenses and selling, general, and administrative expenses	19,320,846
	Sales commission expenses and selling, general, and administrative expenses	8,640,273
	Sales promotion expenses and selling, general, and administrative expenses	1,366,847
	Sample expenses and selling, general, and administrative expenses	833,630
	Packaging expenses and selling, general, and administrative expenses	4,681,500
	Bad debt expense (reversal of allowance for doubtful accounts) and selling, general, and administrative expenses	(779,339)
	Meeting expenses and selling, general, and administrative expenses	867,541
	Amortization of intangible assets and selling, general, and administrative expenses	8,739,804
	Other selling and administrative expenses	1,384,434

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Selling and administrative expenses		389,629,448
Selling and administrative expenses	Salaries and general and administrative expenses	95,386,969
	Retirement benefits and selling, general, and administrative expenses	7,026,819
	Welfare expenses and selling, general, and administrative expenses	18,322,864
	Travel and transportation expenses, and selling, general, and administrative expenses	9,348,395
	Communication expenses and selling, general, and administrative expenses	814,093
	Utilities expenses and selling, general, and administrative expenses	833,587
	Taxes and dues, and selling, general, and administrative expenses	2,589,523
	Rental expenses and selling, general, and administrative expenses	861,403
	Depreciation expenses and selling, general, and administrative expenses	6,433,176

	Repair expenses and selling, general, and administrative expenses	758,467
	Insurance premiums and selling, general, and administrative expenses	2,355,309
	Entertainment expenses and selling, general, and administrative expenses	2,061,816
	Transportation expenses and selling, general, and administrative expenses	14,081,487
	Supplies expenses and selling, general, and administrative expenses	950,091
	Vehicle maintenance expenses and selling, general, and administrative expenses	1,176,975
	Training expenses and selling, general, and administrative expenses	6,613,214
	Printing and publication expenses and selling, general, and administrative expenses	144,524
	Commission expenses and selling, general, and administrative expenses	48,209,887
	Research expenses and selling, general, and administrative expenses	130,293,651
	Advertising and promotion expenses and selling, general, and administrative expenses	19,980,010
	Sales commission expenses and selling, general, and administrative expenses	6,220,133
	Sales promotion expenses and selling, general, and administrative expenses	388,086
	Sample expenses and selling, general, and administrative expenses	867,661
	Packaging expenses and selling, general, and administrative expenses	4,227,893
	Bad debt expense (reversal of allowance for doubtful accounts) and selling, general, and administrative expenses	551,125
	Meeting expenses and selling, general, and administrative expenses	797,162
	Amortization of intangible assets and selling, general, and administrative expenses	5,961,129
	Other selling and administrative expenses	2,373,999

30 Non-operating Income and Expenses – Other Income and Expenses

Other revenue and other expenses

Current period

(Unit: KRW one thousand)

		Disclosure amount
Other revenue		42,810,608
Other revenue	Gain on disposal of tangible assets	14,937,574
	Gain on disposal of right-of-use assets	12,475
	Reversal of allowance for other bad debts	405,814
	Gains on disposal of assets held for sale	5,313,431
	Bargain purchase gain	15,410,998
	Miscellaneous gains	6,730,316
Other losses		30,308,599
Other losses	Losses on disposal of tangible assets	2,373,896
	Losses on disposal of right-of-use assets	0
	Losses on disposal of intangible assets	41,085
	Impairment losses on tangible assets	3,873,692
	Impairment losses on intangible assets	0
	Loss on disposal of trade receivables	485,111

	Contributions	5,559,927
	Affiliates and joint ventures investments	218,342
	Miscellaneous loss	17,756,546

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Other revenue		12,047,851
Other revenue	Gain on disposal of tangible assets	15,650
	Gain on disposal of right-of-use assets	8,998
	Reversal of allowance for other bad debts	397,316
	Gains on disposal of assets held for sale	0
	Bargain purchase gain	0
	Miscellaneous gains	11,625,887
Other losses		43,875,213
Other losses	Losses on disposal of tangible assets	284,834
	Losses on disposal of right-of-use assets	7,990
	Losses on disposal of intangible assets	59,507
	Impairment losses on tangible assets	6,936,627
	Impairment losses on intangible assets	1,153,638
	Loss on disposal of trade receivables	134,602
	Contributions	5,309,695
	Affiliates and joint ventures investments	0
	Miscellaneous loss	29,988,320

30. Non-operating Income and Expenses – Financial Income and Costs

Financial income and financial expenses

Current period

(Unit: KRW one thousand)

		Disclosure amount
Financial income		97,754,824
Financial income	Interest revenue (financial income)	17,938,686
	Gains on disposal of financial assets recognized in profit or loss (financial income)	16,759,687
	Gains on fair value measurement of financial assets recognized in profit or loss (financial income)	16,530,391
	Dividend income (financial income)	1,190,000
	Foreign exchange gains (financial income)	21,699,358
	Foreign currency translation gains (financial income)	14,886,965
	Gains on derivative transactions (financial income)	5,020,322
	Gains on derivative valuation (financial income)	3,729,415
Financial cost		91,735,492

Financial cost	Interest expense (financial cost)	41,439,574
	Losses on disposal of financial assets recognized in profit or loss (financial cost)	2,085,160
	Losses on fair value measurement of financial assets recognized in profit or loss (financial cost)	5,731,034
	Foreign exchange losses (financial cost)	13,893,924
	Foreign currency translation losses (financial cost)	10,603,690
	Losses on derivative transactions (financial cost)	12,361,256
	Losses on derivative valuation (financial cost)	5,620,854

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Financial income		129,105,823
Financial income	Interest revenue (financial income)	19,430,230
	Gains on disposal of financial assets recognized in profit or loss (financial income)	16,340,080
	Gains on fair value measurement of financial assets recognized in profit or loss (financial income)	7,131,820
	Dividend income (financial income)	1,190,000
	Foreign exchange gains (financial income)	37,079,540
	Foreign currency translation gains (financial income)	9,767,591
	Gains on derivative transactions (financial income)	33,913,147
	Gains on derivative valuation (financial income)	4,253,415
Financial cost		125,296,928
Financial cost	Interest expense (financial cost)	32,047,152
	Losses on disposal of financial assets recognized in profit or loss (financial cost)	6,055,061
	Losses on fair value measurement of financial assets recognized in profit or loss (financial cost)	385,439
	Foreign exchange losses (financial cost)	25,823,182
	Foreign currency translation losses (financial cost)	5,500,738
	Losses on derivative transactions (financial cost)	55,374,500
	Losses on derivative valuation (financial cost)	110,856

31 Corporate Tax Expense

Key components of corporate tax expense (income)

Current period

(Unit: KRW one thousand)

	Disclosure amount
Current corporate tax expense (benefit)	29,063,154

Adjustment of current corporate tax for prior periods	(3,178,311)
Deferred corporate tax expense (income) due to the origination and reversal of temporary differences	(34,538,540)
Current and deferred corporate taxes related to items directly charged or credited to equity	(14,422,642)
Corporate tax expense (income)	(23,076,339)

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Current corporate tax expense (benefit)	15,398,655
Adjustment of current corporate tax for prior periods	8,324,739
Deferred corporate tax expense (income) due to the origination and reversal of temporary differences	(40,764,705)
Current and deferred corporate taxes related to items directly charged or credited to equity	21,622,119
Corporate tax expense (income)	4,580,808

Current and deferred corporate taxes related to items directly charged or credited to equity

Current period

(Unit: KRW one thousand)

	Disclosure amount
Corporate tax related to other comprehensive income, including corporate tax on financial assets measured at fair value in other comprehensive income	(14,695,845)
Corporate tax related to cash flow hedging included in other comprehensive income	0
Corporate tax related to remeasurements of defined benefit plans included in other comprehensive income	254,990
Corporate tax related to subsidiary stock options included in other comprehensive income	0
Corporate tax included in equity	18,213
Total current corporate tax and deferred corporate tax related to items directly added to or deducted from equity	(14,422,642)

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Corporate tax related to other comprehensive income, including corporate tax on financial assets measured at fair value in other comprehensive income	16,439,593
Corporate tax related to cash flow hedging included in other comprehensive income	93,413
Corporate tax related to remeasurements of defined benefit plans included in other comprehensive income	4,523,760

Corporate tax related to subsidiary stock options included in other comprehensive income	575,422
Corporate tax included in equity	(10,069)
Total current corporate tax and deferred corporate tax related to items directly added to or deducted from equity	21,622,119

Adjustments to the amount calculated by applying the tax rate to accounting profit

Current period

(Unit: KRW one thousand)

	Disclosure amount
Accounting profit	(27,441,073)
Corporate tax expense (income) based on the applicable tax rate	(2,903,158)
Corporate tax effect of non-taxable income	(388,961)
Corporate tax effect of expenses that are not deductible in the determination of taxable income (taxable loss for tax purposes)	5,381,303
Benefits arising from previously unrecognized tax losses, tax credits, or temporary differences from prior periods used to reduce current corporate tax expense	(25,764,734)
Temporary differences not recognized as deferred corporate tax	0
Adjustments recognized for the current period for the current income tax for the previous periods	(5,535,740)
Corporate tax effect on non-reflux income	0
Other tax effects related to the reconciliation between accounting profit and corporate tax expense (income)	6,134,951
Total corporate tax expense (income)	(23,076,339)
Effective tax rate	

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Accounting profit	52,418,702
Corporate tax expense (income) based on the applicable tax rate	19,157,832
Corporate tax effect of non-taxable income	(959,354)
Corporate tax effect of expenses that are not deductible in the determination of taxable income (taxable loss for tax purposes)	1,574,496
Benefits arising from previously unrecognized tax losses, tax credits, or temporary differences from prior periods used to reduce current corporate tax expense	(20,783,600)
Temporary differences not recognized as deferred corporate tax	(4,352)
Adjustments recognized for the current period for the current income tax for the previous periods	5,832,539
Corporate tax effect on non-reflux income	(583,077)

Other tax effects related to the reconciliation between accounting profit and corporate tax expense (income)	346,324
Total corporate tax expense (income)	4,580,808
Effective tax rate	0.0874

(Note 1) Other corporate tax effects on the reconciliation between accounting profit and corporate tax expense (benefit) The adjustments due to business combinations and temporary differences include the effect of unrecognized deferred corporate tax.

(Note 2) Average effective tax rate: Since a corporate tax benefit was recognized during the current period, the effective tax rate was not calculated.

Disclosure of temporary differences, unused tax losses, and unused tax credits

Current period

(Unit: KRW one thousand)

	Government subsidies	Cumulative impairment loss	Tangible assets	Right-of-use assets	Lease liabilities	Intangible Assets and Goodwill	Provision for inventory valuation	Accrued revenue	Accrued expenses	Derivatives	Securities	Provision for compressor reserve	Provisioning liabilities	Contract liabilities	Net defined benefit liabilities/assets	Share-based payment agreement	Loans	Contributions	Unused tax loss carryforwards	Unused tax credits	Other temporary differences	Temporary differences, Unused tax loss carryforwards Total unused tax credits
Beginning deferred corporate tax liabilities (assets)	(2,286,037)	(1,954,361)	15,144,831	6,952,414	(7,272,219)	(5,253,220)	(26,536,462)	1,443,068	(10,328,321)	1,167,884	(16,733,030)	5,836,265	(4,687,187)	(535,962)	1,590,051	(440,237)	0	(131,973)	0	(23,191,394)	(1,539,969)	(68,755,859)
Deferred corporate tax expense (benefit) recognized in profit or loss	173,290	952,308	(5,418,484)	(4,879,367)	4,961,000	2,999,011	10,159,066	(788,600)	239,634	1,010,026	729,798	(2,418)	2,222,967	300,366	224,775	0	(153,802)	127,627	(33,697,711)	(24,289,074)	(3,971,947)	(49,101,535)
Deferred corporate tax related to items directly added to or deducted from equity	0	0	0	0	0	0	0	0	0	0	14,695,845	0	0	0	(254,990)	0	0	0	0	0	(18,213)	14,422,642
Increase (decrease) due to business combination, deferred corporate tax liabilities (assets)	0	0	62,821,113	(836)	0	9,332,861	(2,792,602)	0	0	(81,536)	0	0	0	0	(195,474)	0	(1,679,427)	0	(16,909,408)	0	(471,470)	50,023,221
Increase (decrease) due to changes in tax rates, deferred corporate tax liabilities (assets)	0	0	(241,405)	(50,704)	54,857	48,665	233,476	(17,483)	76,028	0	(24,529)	0	29,232	2,015	6,506	2,503	0	0	0	0	21,045	140,206
Increase (decrease) due to other changes, deferred corporate tax liabilities (assets)	0	(32,741)	2,289,924	(126)	0	368,413	(329,439)	0	19,228	3,568	0	0	0	0	5,830	86,241	(66,381)	0	(552,251)	(5,514)	240,583	2,027,335
Ending deferred corporate tax liabilities (assets)	(2,112,747)	(1,034,794)	74,595,979	2,021,381	(2,256,362)	7,495,730	(19,265,961)	636,985	(9,993,431)	2,099,942	(1,331,916)	5,833,947	(2,434,988)	(233,581)	1,376,698	(351,493)	(1,899,610)	(4,346)	(51,159,370)	(47,485,982)	(5,739,971)	(51,243,990)
Deferred tax Assets																						123,203,825
Deferred tax Liabilities																						71,959,836

	Government subsidies	Cumulative impairment loss	Tangible assets	Right-of-use assets	Lease liabilities	Intangible Assets and Goodwill	Provision for inventory valuation	Accrued revenue	Accrued expenses	Derivatives	Securities	Provision for compressor reserve	Provisioning liabilities	Contract liabilities	Net defined benefit liabilities/assets	Share-based payment agreement	Loans	Contributions	Unused tax loss carryforwards	Total unused tax credits	Other temporary differences	Temporary differences, Unused tax loss carryforwards, Total unused tax credits
Beginning deferred corporate tax liabilities (assets)	(2,322,027)	(2,009,861)	21,072,343	6,967,081	(7,263,616)	(8,155,032)	(18,331,545)	504,808	(13,547,248)	1,381,754	(1,960,307)	5,862,260	(7,902,078)	(333,084)	2,175,998	(460,628)		0		(4,986,609)	1,316,637	(27,991,154)
Deferred corporate tax expense (benefit) recognized in profit or loss	35,990	55,500	(5,927,512)	(14,667)	(8,603)	2,901,812	(8,204,917)	938,260	3,218,927	(120,457)	1,666,870	(25,995)	3,214,891	(202,878)	3,937,813	595,813		(131,973)		(18,204,785)	(2,866,675)	(19,142,586)
Deferred corporate tax related to items directly added to or deducted from equity	0	0	0	0	0	0	0	0	0	(93,413)	(16,439,593)	0	0	0	(4,523,760)	(575,422)		0		0	10,069	(21,622,119)
Increase (decrease) due to business combination, deferred corporate tax liabilities (assets)																						
Increase (decrease) due to changes in tax rates, deferred corporate tax liabilities (assets)																						
Increase (decrease) due to other changes, deferred corporate tax liabilities (assets)																						
Ending deferred corporate tax liabilities corporate tax liabilities (assets)	(2,286,037)	(1,954,361)	15,144,831	6,952,414	(7,272,219)	(5,253,220)	(26,536,462)	1,443,068	(10,328,321)	1,167,884	(16,733,030)	5,836,265	(4,687,187)	(535,962)	1,590,051	(440,237)	0	(131,973)	0	(23,191,394)	(1,539,969)	(68,755,859)
Deferred tax Assets																						68,755,859
Deferred tax Liabilities																						0

The possibility of future realization for the deferred income tax assets depends on various factors such as the consolidated companies' ability to generate taxable income during the period in which the temporary differences are realized, and the overall economic environment and outlook for the industry. The consolidated companies regularly review these matters, and as of the end of the current period, deferred corporate tax assets have been recognized for temporary differences that are considered realizable.

Disclosure of temporary differences, etc., that have not been recognized as deferred corporate tax assets

Current period

(Unit: KRW one thousand)

	Disclosure amount
Tax effects arising from temporary differences, unused tax losses, unused tax credits, etc., that have not been recognized as deferred corporate tax assets	48,962,820

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Tax effects arising from temporary differences, unused tax losses, unused tax credits, etc., that have not been recognized as deferred corporate tax assets	52,343,864

International tax reform - Pillar 2 model rules

The consolidated companies are applying the temporary exemption provision for deferred corporate tax under Corporate Accounting Standard No. 1012 and are not recognizing deferred corporate tax assets and liabilities related to Pillar 2 legislation. Furthermore, they do not disclose information related to deferred corporate tax.

Under the global minimum tax legislation, the consolidated companies are required to pay additional taxes to South Korea on the profits of subsidiaries taxed at an effective tax rate of less than 15%. Based on the current financial statements, the Company reviewed whether the transition period exemption requirements under Article 80 of the Adjustment of International Taxes Act are met in each country where the Company's subsidiaries are located. All countries meet these requirements. In the case of countries that meet the transitional exemption requirements, the additional global minimum tax for the current period in that country can be considered as nonexistent. Therefore, the consolidated companies' current corporate tax expense does not include any current corporate tax expense related to Pillar 2 tax. The estimated annual effective tax rate may change due to various factors, including tax benefits received by subsidiaries, adjustments to accounting net income for calculating global minimum tax income as required by subsequent interim period laws, and other related factors. As a result, the current corporate tax expense related to Pillar 2 is exposed to estimated uncertainty.

32 Earnings per Share

Earnings per share (EPS)

Current period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks	Total number of shares
Net income (loss)			(4,364,734)
Net income (loss) attributable to the owners of the parent company			8,838,745
Net income (loss) attributable to non-controlling interests			(13,203,479)
Adjustment of profit (loss) for preferred share dividends			(2,360,755)
Loss (profit) attributable to participatory equity instruments other than common shares used in the calculation of basic earnings (loss) per share			0
Net profit (loss) attributable to the common shares of the parent	6,477,990		

Net profit (loss) attributable to the preferred shares of the parent		2,360,755	
Weighted average number of common stocks outstanding (unit: shares)	17,222,926		
Weighted average number of preferred stocks outstanding (unit: shares)		1,967,296	
Earnings (loss) per common stock (Unit: KRW, stocks)	376		376
Basic earnings (loss) per preferred stock (unit: KRW/share)		1,200	1,200
Increase (decrease) in earnings (loss) reflecting the dilutive effect of potential common share conversions	0		
Net profit (loss) attributable to the common stocks of the parent company, including the dilutive effect	6,477,990		
Potential effect of stock options on the number of common stocks outstanding (unit: shares)	4,986		
Adjusted weighted average number of common stocks outstanding (unit: shares)	17,227,912		
Diluted earnings (loss) per share (Unit: KRW, stocks)	375		375

Previous period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks	Total number of shares
Net income (loss)			47,837,894
Net income (loss) attributable to the owners of the parent company			39,863,822
Net income (loss) attributable to non-controlling interests			7,974,072
Adjustment of profit (loss) for preferred share dividends			(1,377,107)
Loss (profit) attributable to participatory equity instruments other than common shares used in the calculation of basic earnings (loss) per share			(2,797,836)

Net profit (loss) attributable to the common shares of the parent	35,688,880		
Net profit (loss) attributable to the preferred shares of the parent		4,174,942	
Weighted average number of common stocks outstanding (unit: shares)	17,222,926		
Weighted average number of preferred stocks outstanding (unit: shares)		1,967,296	
Earnings (loss) per common stock (Unit: KRW, stocks)	2,072		2,072
Basic earnings (loss) per preferred stock (unit: KRW/share)		2,122	2,122
Increase (decrease) in earnings (loss) reflecting the dilutive effect of potential common share conversions	0		
Net profit (loss) attributable to the common stocks of the parent company, including the dilutive effect	35,688,880		
Potential effect of stock options on the number of common stocks outstanding (unit: shares)	13,555		
Adjusted weighted average number of common stocks outstanding (unit: shares)	17,236,481		
Diluted earnings (loss) per share (Unit: KRW, stocks)	2,071		2,071

(Note 1) Basic earnings (loss) per preferred stock: Preferred stocks issued under the Commercial Act prior to the 1997 amendment, where these preferred stocks have the same priority as common stocks in terms of dividend payments and distribution of residual assets.

The diluted earnings per share were calculated by applying the number of weighted average common shares outstanding adjusted under the assumption that all dilutive potential common shares will be converted into common shares. The dilutive potential common shares held by the consolidated companies include stock options. The number of stocks resulting from stock options is calculated by calculating the number of stocks to be acquired at fair value based on the monetary value of the exercise of the right added to the stock options, and by comparing this number of stocks with the number of stocks to be issued if the stock options are assumed to have been exercised.

Details of the calculation of weighted average number of shares outstanding

Current period

	Common stocks	Preferred stocks
Start date, number of outstanding shares	2024-01-01	2024-01-01
End date, number of outstanding shares	2024-12-31	2024-12-31
Number of days, number of outstanding shares	366	366

Quantity of outstanding shares	17,222,926	1,967,296
Number of weighted average common shares outstanding	17,222,926	
Number of weighted average preferred shares outstanding		1,967,296

Previous period

	Common stocks	Preferred stocks
Start date, number of outstanding shares	2023-01-01	2023-01-01
End date, number of outstanding shares	2023-12-31	2023-12-31
Number of days, number of outstanding shares	365	365
Quantity of outstanding shares	17,222,926	1,967,296
Number of weighted average common shares outstanding	17,222,926	
Number of weighted average preferred shares outstanding		1,967,296

33 Consolidated Statement of Cash Flows

Cash flows from operating activities

Current period

(Unit: KRW one thousand)

		Disclosure amount
Adjustments for net income reconciliation		23,382,306
Adjustments for net income reconciliation	Adjustment of corporate tax expense	(23,076,339)
	Adjustment for interest income	(17,938,686)
	Adjustment for interest expense	41,439,574
	Adjustment for inventory valuation loss	0
	Adjustment for reversal of inventory valuation loss	(73,579,316)
	Adjustment for loss on disposal of trade receivables	485,111
	Adjustment for retirement benefits	23,840,022
	Adjustment for bad debt expense	0
	Reversal of bad debt expense	(779,339)
	Reversal of other bad debt expense	(405,814)
	Adjustment for depreciation expense	118,644,564
	Adjustment for amortization of intangible assets	16,904,286
	Adjustment for gain on disposal of tangible assets	(14,937,574)
	Adjustment for gain on disposal of right-of-use assets	(12,475)
	Adjustment for loss on disposal of tangible assets	2,373,896
	Adjustment on losses on disposal of right-of-use assets	0
	Adjustment for loss on disposal of intangible assets	41,085
	Adjustment for impairment loss on tangible assets	3,873,692
	Adjustment for impairment loss on intangible assets	0
	Adjustment for foreign currency translation gains	(14,886,965)

	Adjustment for foreign currency translation losses	10,603,690
	Adjustment for foreign currency translation gains	0
	Adjustment for foreign currency translation losses	0
	Adjustment of derivative financial asset valuation gains	(3,729,415)
	Adjustment for losses on derivative valuation	5,620,854
	Adjustment for dividend income	(1,190,000)
	Adjustment of equity method gains	0
	Adjustment of equity method losses	786,846
	Gains on disposal of financial assets measured at fair value through profit or loss	(16,759,687)
	Loss on disposal of financial assets measured at fair value through profit or loss	2,085,160
	Gain on valuation of financial assets measured at fair value through profit or loss	(16,530,391)
	Loss on valuation of financial assets measured at fair value through profit or loss	5,731,034
	Gains on disposal of assets held for sale	(5,313,431)
	Reversal of provision for liabilities	(6,460,141)
	Adjustment of bargain purchase gain	(15,410,998)
	Impairment loss on investments in subsidiaries, associates, and joint ventures	218,342
	Other adjustments for the reconciliation of net income	1,744,721
Changes in assets and liabilities due to operating activities		(70,350,630)
Changes in assets and liabilities due to operating activities	Adjustment for decrease (increase) in trade receivables and other receivables	(142,601,385)
	Decrease (increase) in inventory	84,457,023
	Decrease (increase) in other assets	(15,720,201)
	Increase (decrease) in trade payables	(20,273,523)
	Increase (decrease) in other liabilities	3,792,187
	Increase (decrease) in other current liabilities	(3,516,475)
	Increase (decrease) in other non-current liabilities	71,025
	Increase (decrease) in retirement benefit obligations	1,240,983
	Decrease (increase) in the fair value of external fund assets	(23,344,745)
	Increase (decrease) in contract liabilities	57,374,964
	Increase (decrease) in current provisions	(12,154,878)
	Increase (decrease) in non-current provisions	0
	Adjustment due to settlement of derivative transactions	324,395

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Adjustments for net income reconciliation		184,647,288
Adjustments for net income reconciliation	Adjustment of corporate tax expense	4,580,808
	Adjustment for interest income	(19,430,230)
	Adjustment for interest expense	32,047,152
	Adjustment for inventory valuation loss	51,356,102
	Adjustment for reversal of inventory valuation loss	0
	Adjustment for loss on disposal of trade receivables	134,602
	Adjustment for retirement benefits	16,530,835
	Adjustment for bad debt expense	551,125
	Reversal of bad debt expense	0
	Reversal of other bad debt expense	(397,316)
	Adjustment for depreciation expense	100,049,000
	Adjustment for amortization of intangible assets	12,836,377
	Adjustment for gain on disposal of tangible assets	(15,650)
	Adjustment for gain on disposal of right-of-use assets	(8,998)
	Adjustment for loss on disposal of tangible assets	284,834
	Adjustment on losses on disposal of right-of-use assets	7,990
	Adjustment for loss on disposal of intangible assets	59,507
	Adjustment for impairment loss on tangible assets	6,936,627
	Adjustment for impairment loss on intangible assets	1,153,638
	Adjustment for foreign currency translation gains	(9,767,591)
	Adjustment for foreign currency translation losses	5,500,738
	Adjustment for foreign currency translation gains	(1,125,002)
	Adjustment for foreign currency translation losses	1,110,000
	Adjustment of derivative financial asset valuation gains	(4,253,415)
	Adjustment for losses on derivative valuation	110,856
	Adjustment for dividend income	(1,190,000)
	Adjustment of equity method gains	
	Adjustment of equity method losses	2,865,319
	Gains on disposal of financial assets measured at fair value through profit or loss	(16,340,080)
	Loss on disposal of financial assets measured at fair value through profit or loss	6,055,061
	Gain on valuation of financial assets measured at fair value through profit or loss	(7,131,820)
	Loss on valuation of financial assets measured at fair value through profit or loss	385,439

	Gains on disposal of assets held for sale	0
	Reversal of provision for liabilities	0
	Adjustment of bargain purchase gain	0
	Impairment loss on investments in subsidiaries, associates, and joint ventures	0
	Other adjustments for the reconciliation of net income	1,751,380
Changes in assets and liabilities due to operating activities		(21,843,442)
Changes in assets and liabilities due to operating activities	Adjustment for decrease (increase) in trade receivables and other receivables	78,580,476
	Decrease (increase) in inventory	53,171,598
	Decrease (increase) in other assets	1,466,949
	Increase (decrease) in trade payables	6,934,731
	Increase (decrease) in other liabilities	(18,822,151)
	Increase (decrease) in other current liabilities	(22,123,319)
	Increase (decrease) in other non-current liabilities	42,167
	Increase (decrease) in retirement benefit obligations	(481,029)
	Decrease (increase) in the fair value of external fund assets	(35,768,000)
	Increase (decrease) in contract liabilities	(101,276,392)
	Increase (decrease) in current provisions	8,201,896
	Increase (decrease) in non-current provisions	3,678,739
	Adjustment due to settlement of derivative transactions	4,550,893

(Note 1) Adjustment for depreciation expense: This is the depreciation for tangible assets, investment real estate properties, and the right-of-use assets.

Significant transactions that do not involve cash inflows or outflows

Current period

(Unit: KRW one thousand)

	Disclosure amount
Other account reclassifications for construction in progress and machineries in transit	91,341,024
Acquisition of accounts payable for construction in progress	1,174,640
Transfer from long-term liabilities to current liabilities	145,657,529
Transfer from lease liabilities to current liabilities	8,534,748
Recognition of right-of-use assets and lease liabilities	19,474,620
Write-off of trade receivables and other receivables	3,904,096
Changes in accounts payable for retirement benefits	4,608,858

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Other account reclassifications for construction in progress and machineries in transit	59,518,705
Acquisition of accounts payable for construction in progress	10,637,703
Transfer from long-term liabilities to current liabilities	192,160,529
Transfer from lease liabilities to current liabilities	5,647,438
Recognition of right-of-use assets and lease liabilities	4,095,204
Write-off of trade receivables and other receivables	476,850
Changes in accounts payable for retirement benefits	4,257,924

Disclosure of adjustments to liabilities arising from financing activities

Current period
(thousand)

(Unit: KRW one thousand)

	Classification of asset and liability changes into current and non-current categories								Total classification of asset and liability changes into current and non-current categories
	Assets and liabilities classified as current				Assets and liabilities classified as non-current				
	Liabilities arising from financing activities								
	Short-term borrowings	Long-term borrowings	Debenture	Lease liabilities	Short-term borrowings	Long-term borrowings	Debenture	Lease liabilities	
Ending liabilities arising from financing activities	263,707,890	2,550,000	189,855,128	7,677,175		472,518,337	164,557,091	9,022,894	1,109,888,515
Financing cash flows, increase (decrease) in liabilities arising from financing activities	34,981,558	(20,046,014)	(190,000,000)	(10,755,542)		358,405,606	149,347,607	0	321,933,215
Reclassification of liquidity, increase (decrease) in liabilities arising from financing activities	0	50,883,297	94,774,232	8,534,748		(50,883,297)	(94,774,232)	(8,534,748)	0
Changes arising from obtaining or losing control over subsidiaries or other businesses, increase (decrease) in liabilities arising from financing activities	0	0	0	1,964,890		181,309,380	0	1,113,236	184,387,506
Other changes, increase (decrease) in liabilities arising from increase (decrease) in liabilities arising from financing activities	4,405,880	(959,859)	340,640	383,027		22,465,229	274,503	15,083,321	41,992,741
Ending liabilities arising from financing activities	303,095,328	32,427,424	94,970,000	7,804,298		983,815,255	219,404,969	16,684,703	1,658,201,977

Previous period
(thousand)

(Unit: KRW one thousand)

	Classification of asset and liability changes into current and non-current categories								Total classification of asset and liability changes into current and non-current categories
	Assets and liabilities classified as current				Assets and liabilities classified as non-current				
	Liabilities arising from financing activities								
	Short-term borrowings	Long-term borrowings	Debenture	Lease liabilities	Short-term borrowings	Long-term borrowings	Debenture	Lease liabilities	
	Short-term borrowings	Long-term borrowings	Debenture	Lease liabilities	Short-term borrowings	Long-term borrowings	Debenture	Lease liabilities	
Ending liabilities arising from financing activities	436,109,819	0	103,986,944	11,685,098		7,172,699	154,787,349	13,185,242	726,927,151
Financing cash flows, increase (decrease) in liabilities arising from financing activities	(172,298,524)	0	(105,129,000)	(11,891,145)		469,715,903	199,140,850	0	379,538,084

Reclassification of liquidity, increase (decrease) in liabilities arising from financing activities	0	2,550,000	189,610,529	5,647,438		(2,550,000)	(189,610,529)	(5,647,438)	0
Changes arising from obtaining or losing control over subsidiaries or other businesses, increase (decrease) in liabilities arising from financing activities									
Other changes, increase (decrease) in liabilities arising from increase (decrease) in liabilities arising from financing activities	(103,405)	0	1,386,655	2,235,784		(1,820,265)	239,421	1,485,090	3,423,280
Ending liabilities arising from financing activities	263,707,890	2,550,000	189,855,128	7,677,175		472,518,337	164,557,091	9,022,894	1,109,888,515

(Note 1) Other changes, increase (decrease) in liabilities arising from financing activities: Accrued interest on interest-bearing borrowings, foreign exchange adjustments, and effects of foreign operations translation are included. The consolidated companies classify interest payments as cash flows from operating activities.

34 Financial Risk Management Objectives and Policies

The consolidated companies' major financial liabilities, excluding derivatives, consist of trade and other payables, borrowings and bonds. The main purpose of these financial liabilities is to raise funds for the operation of the consolidated companies. The main financial assets of the consolidated companies include trade receivables, cash, and short-term deposits directly derived from operating activities. The consolidated companies also hold investments in debt and equity instruments and engage in derivative transactions.

The consolidated companies are exposed to market risk, credit risk, and liquidity risk. The consolidated companies' senior management supervise the management of such risks. All derivative activities for the purpose of risk management are carried out by a team of professionals equipped with the appropriate skills, experiences, and oversight. It is the policy of the consolidated companies to avoid conducting any trading of derivatives for speculative purposes.

Market risk

Market risk is the risk related to the fair value or future cash flows of financial instruments fluctuating due to changes in the market prices. Market risk consists of the following three types of risk: interest rate risk, foreign currency risk, and other price risk. Financial instruments affected by market risk include borrowings, bonds, deposits, debt and equity investments, and derivative financial instruments.

The following sensitivity analysis is related to the statement of financial position as of the end of the current and previous periods.

The sensitivity analysis has been prepared based on the designation of a hedging interest rate while the net amount of liabilities, fixed interest rate of liabilities and derivatives, variable interest rate and the ratio of foreign currency financial instruments were all constant as of the end of the current period.

This analysis excludes the effect of movements of the market variables on the book values of retirement pensions and other post-retirement liabilities and provisions.

The following assumptions are applied in conducting the sensitivity analysis.

The sensitivity of the relevant income statement reflects the impact of a hypothetical change in each market risk variable. This is based on the financial assets and financial liabilities held at the end of the current and previous periods, including the effect of hedge accounting.

Disclosure of the nature and extent of risks arising from financial instruments

	Risk				
	Market risk			Credit risk	Liquidity risk
	Interest rate risk	Exchange risk	Other price risks		
Description of exposure to risk	Interest rate risk is the risk that the fair value or future cash flows of financial instruments will fluctuate due to changes in market interest rates. The consolidated companies' exposure to market interest rate fluctuations is primarily related to long-term debts of the consolidated companies that are subject to variable interest rates.	Foreign exchange risk is the risk that the fair value or future cash flows of financial instruments will fluctuate due to changes in exchange rates.	Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market prices other than interest rate risk or currency risk. Meanwhile, among the other comprehensive income - fair value measured financial assets held by the consolidated companies, listed equity instruments are exposed to price fluctuation risk.	Credit risk is the risk of financial loss to the consolidated companies arising from the failure of a counterparty to fulfill its obligations. Credit risk arising from other assets of the consolidated companies, consisting of cash equivalents, long-term and short-term deposits, and long-term and short-term loans, stems from the potential default of counterparties. In such cases, the consolidated companies' exposure to credit risk will be equal to the book value of the respective financial instruments.	Liquidity risk is the risk of failing to secure funds to meet all contractual obligations on financial agreements by their maturity.

Description of the objectives, policies, and procedures of risk management	The consolidated companies internally measure interest rate risk based on a 1% point change in interest rates, and the above-mentioned change rate reflects management's assessment of reasonably possible interest rate fluctuations. The management of the consolidated companies manages the risk of fluctuations in the future cash flows of financial instruments due to changes in market interest rates by entering into currency swap and interest rate swap contracts.	The consolidated companies internally measure the foreign exchange risk for the exchange rate fluctuations on a regular basis, and effectively manage the foreign exchange risk via currency futures trading, and thus, the effect on the profit and loss is restricted.	(1) Trade receivables and other receivables The consolidated companies, as a principle, perform credit verification procedures for all counterparties wishing to engage in credit transactions, conducting business only with counterparties that have sound creditworthiness. In addition, the consolidated companies conduct continuous management of trade receivables, other receivables, and contract asset balances, including the ongoing reassessment of creditworthiness, to ensure that their exposure to bad debt risk remains at a level deemed not significant. The consolidated companies individually recognize impairment on major customer receivables and contract assets as of the reporting date, and additionally, for small and numerous receivables, impairment is collectively assessed by including them in a group of financial assets with similar credit risk characteristics. As of the end of the reporting period, the extent of maximum exposure to the credit risk is the book amount of the financial assets described under Note 5. (2) Other assets The consolidated companies deposit cash equivalents and short-term financial instruments with financial institutions such as Woori Bank, and engage in transactions with institutions that have high credit ratings, so the credit risk from financial institutions is limited.	The consolidated companies manage the risk of liquidity shortages through liquidity strategies and plans, matching the maturities of financial assets and financial liabilities by considering the maturity of financial instruments and estimated operating cash flows.

Disclosure of interest rate types for financial instruments

Current period

(Unit: KRW one thousand)

	Interest rate types		
	Variable interest rate		
	Financial liabilities, Classification		Financial liabilities, Total classification
	Short-term borrowings	Long-term borrowings	
Borrowings (including bonds)	210,688,743	797,166,232	1,007,854,975

Previous period

(Unit: KRW one thousand)

	Interest rate types		
	Variable interest rate		
	Financial liabilities, Classification		Financial liabilities, Total classification
	Short-term borrowings	Long-term borrowings	
Borrowings (including bonds)	142,718,841	317,568,337	460,287,178

Sensitivity analysis for each type of market risk exposure as of the reporting period-end, interest rate risk

Current period

(Unit: KRW one thousand)

	Risk		
	Interest rate risk		
	Financial liabilities, Classification		Financial liabilities, Total classification
	Short-term borrowings	Long-term borrowings	
Disclosure of sensitivity analysis for each type of market risk	The impact on profit before tax, assuming all other variables remain constant, with a 1% point change in interest rates	The impact on profit before tax, assuming all other variables remain constant, with a 1% point change in interest rates	
Decrease in profit or loss for the period with an increase in market variables	(2,106,887)	(7,971,662)	(10,078,549)
Increase in profit or loss for the period with a decrease in market variables	2,106,887	7,971,662	10,078,549

Previous period

(Unit: KRW one thousand)

	Risk		
	Interest rate risk		
	Financial liabilities, Classification		Financial liabilities, Total classification
	Short-term borrowings	Long-term borrowings	
Disclosure of sensitivity analysis for each type of market risk	The impact on profit before corporate tax from a 1% point change in interest rates,	The impact on profit before corporate tax from a 1% point change in interest rates,	

	all other variables being constant	all other variables being constant	
Decrease in profit or loss for the period with an increase in market variables	(1,427,188)	(3,175,683)	(4,602,871)
Increase in profit or loss for the period with a decrease in market variables	1,427,188	3,175,683	4,602,871

Breakdown of foreign currency financial assets by currency

Current period

(Unit: KRW one thousand)

	Risk						
	Exchange risk						
	Functional currency or reporting currency						Functional currency or presentation currency
	USD	CNY	EUR	GBP	JPY	Other currencies	Total currency
Foreign currency financial assets, KRW Converted amount	196,775,227	17,862,458	197,158,050	2,678	4,036,668	666,270	416,501,351

Previous period

(Unit: KRW one thousand)

	Risk						
	Exchange risk						
	Functional currency or reporting currency						Functional currency or presentation currency
	USD	CNY	EUR	GBP	JPY	Other currencies	Total currency
Foreign currency financial assets, KRW Converted amount	81,771,660	24,935,031	23,896,005	0	2,954,389	396,319	133,953,404

Breakdown of foreign currency financial liabilities by currency

Current period

(Unit: KRW one thousand)

	Risk						
	Exchange risk						
	Functional currency or reporting currency						Functional currency or presentation currency
	USD	CNY	EUR	GBP	JPY	Other currencies	Total currency
Foreign currency financial liabilities, KRW Converted amount	126,302,582	6,731,967	124,106,723	36,420	0	0	257,177,692

Previous period

(Unit: KRW one thousand)

	Risk						
	Exchange risk						
	Functional currency or reporting currency						Functional currency or presentation currency
	USD	CNY	EUR	GBP	JPY	Other currencies	Total currency
Foreign currency financial liabilities, KRW Converted amount	60,674,198	144,742,567	79,185,096	0	41,754	102,450	284,746,065

(Note 1) The foreign currency borrowings and foreign currency bonds for which currency swaps are executed are excluded since they are not exposed to the exchange risk.

Sensitivity analysis for each type of market risk exposure as of the reporting period-end, foreign exchange risk

Current period

(Unit: KRW one thousand)

	Risk						
	Exchange risk						
	Functional currency or reporting currency						Functional currency or presentation currency Total currency
	USD	CNY	EUR	GBP	JPY	Other currencies	
Disclosure of sensitivity analysis for each type of market risk	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	
Increase in profit or loss for the period with an increase in market variables	16,153,890	1,229,721	16,063,239	1,955	201,833	33,314	33,683,952
Decrease in profit or loss for the period with an increase in market variables							0
Increase in profit or loss for the period with a decrease in market variables							0
Decrease in profit or loss for the period with a decrease in market variables	(16,153,890)	(1,229,721)	(16,063,239)	(1,955)	(201,833)	(33,314)	(33,683,952)

Previous period

(Unit: KRW one thousand)

	Risk						
	Exchange risk						
	Functional currency or reporting currency						Functional currency or presentation currency Total currency
	USD	CNY	EUR	GBP	JPY	Other currencies	
Disclosure of sensitivity analysis for each type of market risk	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	
Increase in profit or loss for the period with an increase in market variables	7,122,293	8,483,880	5,154,055	0	149,807	24,938	20,934,973
Decrease in profit or loss for the period with an increase in market variables							0
Increase in profit or loss for the period with a decrease in market variables							0
Decrease in profit or loss for the period with a decrease in market variables	(7,122,293)	(8,483,880)	(5,154,055)	0	(149,807)	(24,938)	(20,934,973)

Sensitivity analysis of each type of market risk exposure as of the reporting date, other price risk

(Unit: KRW one thousand)

	Equity price risk
Disclosure of sensitivity analysis for each type of market risk	The impact on other comprehensive income from price fluctuations of listed equity instruments if the stock price changes by 5%
Increase in pre-tax other comprehensive income due to an increase in market variables	590,940
Tax effect due to an increase in market variables	(114,170)
Increase in other comprehensive income due to an increase in market variables	476,770

Decrease in pre-tax other comprehensive income due to a decrease in market variables	(590,940)
Tax effect due to a decrease in market variables	114,170
Decrease in other comprehensive income due to a decrease in market variables	(476,770)

Disclosure of maturity analysis for non-derivative financial liabilities

Current period

(Unit: KRW one thousand)

		Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years	Total Subtotal
Non-derivative financial liabilities, undiscounted cash flows		818,896,432	253,021,190	755,764,647	549,119,349	2,376,801,618
Non-derivative financial liabilities, undiscounted cash flows	Accounts payable and other payables, undiscounted cash flows	307,560,156	0	0	0	307,560,156
	Bank borrowings, Undiscounted cash flows	395,301,472	123,129,392	648,944,288	530,759,530	1,698,134,682
	Total lease liabilities	7,999,427	4,504,214	5,430,026	18,359,819	36,293,486
	Other financial liabilities, Undiscounted cash flows	2,877,252	0	0	0	2,877,252
	Bonds, Undiscounted cash flows	105,158,125	125,387,584	101,390,333	0	331,936,042

Previous period

(Unit: KRW one thousand)

		Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years	Total Subtotal
Non-derivative financial liabilities, undiscounted cash flows		716,138,533	111,053,893	171,279,601	366,533,831	1,365,005,858
Non-derivative financial liabilities, undiscounted cash flows	Accounts payable and other payables, undiscounted cash flows	246,663,913	0	0	0	246,663,913
	Bank borrowings, Undiscounted cash flows	266,257,890	12,927,084	96,591,253	363,000,000	738,776,227
	Total lease liabilities	7,901,030	3,126,809	4,688,348	3,533,831	19,250,018
	Other financial liabilities, Undiscounted cash flows	5,315,700	0	0	0	5,315,700
	Bonds, Undiscounted cash flows	190,000,000	95,000,000	70,000,000	0	355,000,000

(Note 1) Other financial liabilities, Undiscounted cash flows Deposits received and unpaid dividends.

(Note 2) Current - bank borrowings, undiscounted cash flows: Interest expenses are included.

(Note 3) Bonds, undiscounted cash flows: Included are the interest expenses.

Disclosure of maturity analysis of derivative financial liabilities

Current period

(Unit: KRW one thousand)

	Within 1 year	Total Subtotal
Derivative financial instruments held for trading, undiscounted cash flows	5,620,854	5,620,854

Previous period

(Unit: KRW one thousand)

	Within 1 year	Total Subtotal

Derivative financial instruments held for trading, undiscounted cash flows	110,856	110,856

Capital management

The primary purpose of capital management is to maintain a high credit rating and sound capital ratios with a view to maintaining the consolidated companies' operating activities and maximizing the shareholder value.

The consolidated companies amend their capital structure in line with the changes in the economic environment, and towards this end, they require amendments to be made for their dividend policy, capital reduction be made, and the issuance of new shares be considered. Meanwhile, no changes were made to the purposes, policies and the procedures of capital management during the current period.

Disclosure of the company's objectives, policies, and procedures for capital management

Current period

(Unit: KRW one thousand)

	Disclosure amount
Liabilities	2,334,082,397
Cash and cash equivalents	(542,302,081)
Adjusted liabilities	1,791,780,316
Equity	3,032,966,230
Debt ratio	0.5908

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Liabilities	1,483,000,848
Cash and cash equivalents	(396,012,210)
Adjusted liabilities	1,086,988,638
Equity	2,675,774,056
Debt ratio	0.4062

35 Fair Value Measurement

Fair value hierarchy

The consolidated companies classify the fair value measurements according to the fair value hierarchy which reflects the significance of the input variables used for the fair value measurement. The levels of the fair value hierarchy are as follows.

Level 1: The unadjusted quoted price in an active market for the same asset or liability accessible at the measurement date, where the quoted price reflects the market's assumptions regarding changes in the economic environment, such as interest rate increases, inflation, and ESG-related risks.

Level 2: Input variables that are directly or indirectly observable for an asset or liability, other than the Level 1 quoted prices

Level 3: Unobservable input variables for assets or liabilities, such as unlisted equity securities and financial instruments that reflect significant unobservable adjustments due to ESG-related risks

Disclosure of fair value measurement of assets

Current period

(Unit: KRW one thousand)

	Total measurement
	Fair value

	Financial assets, Classification											
	Derivatives				Short-term financial instruments				Long-term investment assets			
	All levels of the fair value hierarchy			Fair value hierarchy in the fair value hierarchy	All levels of the fair value hierarchy			Fair value hierarchy in the fair value hierarchy	All levels of the fair value hierarchy			Fair value hierarchy in the fair value hierarchy
	Fair value hierarchy Level 1:	Fair value hierarchy Level 2:	Fair value hierarchy Level 3:		Fair value hierarchy Level 1:	Fair value hierarchy Level 2:	Fair value hierarchy Level 3:		Fair value hierarchy Level 1:	Fair value hierarchy Level 2:	Fair value hierarchy Level 3:	
Financial assets	0	195	8,784,996	8,785,191	0	611,864,246	0	611,864,246	11,818,800	0	74,016,468	85,835,269

Previous period

(Unit: KRW one thousand)

	Total measurement											
	Fair value											
	Financial assets, Classification											
	Derivatives				Short-term financial instruments				Long-term investment assets			
	All levels of the fair value hierarchy			Fair value hierarchy in the fair value hierarchy	All levels of the fair value hierarchy			Fair value hierarchy in the fair value hierarchy	All levels of the fair value hierarchy			Fair value hierarchy in the fair value hierarchy
	Fair value hierarchy Level 1:	Fair value hierarchy Level 2:	Fair value hierarchy Level 3:		Fair value hierarchy Level 1:	Fair value hierarchy Level 2:	Fair value hierarchy Level 3:		Fair value hierarchy Level 1:	Fair value hierarchy Level 2:	Fair value hierarchy Level 3:	
Financial assets	0	435,251	5,055,776	5,491,027	0	871,919,247	0	871,919,247	40,229,280	0	62,537,088	102,766,368

Disclosure of fair value measurement of assets_Total

Current period

(Unit: KRW one thousand)

	Total measurement			
	Fair value			
	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy
	Fair value hierarchy Level 1	Fair value hierarchy Level 2	Fair value hierarchy Level 3	
Financial assets	11,818,800	611,864,441	82,801,465	706,484,706

Previous period

(Unit: KRW one thousand)

	Total measurement			
	Fair value			
	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy
	Fair value hierarchy Level 1	Fair value hierarchy Level 2	Fair value hierarchy Level 3	
Financial assets	40,229,280	872,354,498	67,592,864	980,176,642

(Note 1) The fair value hierarchy Level 3: Except as otherwise provided, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value (refer to Note 35-3).

Disclosure of fair value measurement of liabilities

Current period

(Unit: KRW one thousand)

	Total measurement			
	Fair value			
	Financial liabilities, Classification			
	Derivatives			
	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy
	Fair value hierarchy	Fair value hierarchy	Fair value hierarchy	

	Level 1:	Level 2:	Level 3:	
Financial liabilities	0	5,191,791	429,063	5,620,854

Previous period

(Unit: KRW one thousand)

	Total measurement			
	Fair value			
	Financial liabilities, Classification			
	Derivatives			
	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy
	Fair value hierarchy Level 1	Fair value hierarchy Level 2	Fair value hierarchy Level 3	
Financial liabilities	0	110,856	0	110,856

(Note 1) The fair value hierarchy Level 3: Except as otherwise provided, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value (refer to Note 35-3).

Meanwhile, the fair values of cash and cash equivalents, other assets, interest-bearing borrowings, and bonds payable have been excluded from the fair value disclosure as the effects of discounting are not significant and are considered to be similar to their book values.

At the end of the period, among the assets and liabilities measured at fair value in the statement of financial position, those classified under Level 2 of the fair value hierarchy were valued using the market approach, with the fair value of the underlying assets as the input variable.

Disclosure of unobservable input variables used in the fair value measurement of assets

(Unit: KRW one thousand)

	Total measurement						
	Fair value						
	Financial assets, Classification						
	Derivatives		Long-term investment assets				
	Put option for SK Chemicals Daejeong Co., Ltd.	Put option for HDC Polyall Co., Ltd.	Put option for Eastman Fiber Korea Ltd.	Sante Health Ventures IV LP	Korea Investment Bio Global Fund	Tiumbio Co., Ltd. Preferred stocks	CTCELLS Co., Ltd.
	All levels of the fair value hierarchy						
	Fair value hierarchy Level 3						
Financial assets	1,085,246	7,699,750	29,147,160	12,540,114	1,602,470	14,268,961	177,968
Description of the valuation techniques used in fair value measurement, assets	Discounted cash flow method	Discounted cash flow method	Expected price considering the value of call options and put options	Net asset value method	Net asset value method	Binomial model	Net asset value method
Description of the input variables used in fair value measurement, assets	Liquidation cash flow, weighted average cost of capital	Expected future cash flows, weighted average cost of capital	Exchange rate	Fair value of net assets	Fair value of net assets	Conversion price and expected stock volatility	Fair value of net assets

(Note 1) Net asset value method: The fair value was determined based on the ownership interest of the parent company in the net assets of the entity, as the book value of the assets within the portfolio was deemed to be close to their fair value.

Disclosure of unobservable input variables used in the fair value measurement of assets - Total

(Unit: KRW one thousand)

	Total measurement	
	Fair value	
	Financial assets, Classification	
	Derivatives	Long-term investment assets

	All levels of the fair value hierarchy	
	Fair value hierarchy Level 3	
Financial assets	8,784,996	57,736,673

Disclosure of unobservable input variables used in the fair value measurement of liabilities

(Unit: KRW one thousand)

	Total measurement
	Fair value
	Financial liabilities, Classification
	Derivatives
	Call option on convertible preferred stocks of Tiumbio Co., Ltd.
	All levels of the fair value hierarchy
	Fair value hierarchy Level 3
Financial liabilities	429,063
Description of the valuation techniques used in fair value measurement, liabilities	Binomial model
Description of the input variables used in fair value measurement, Liabilities	Expected stock price volatility

The consolidated companies, as of the reporting date, determine that the book value of financial instruments not subsequently measured at fair value in the consolidated statement of financial position does not materially differ from their fair value. As of the end of the period, the book value of financial instruments that are not subsequently measured at fair value are as follows:

Disclosure of fair value not measured in the statement of financial position but disclosed fair value

(Unit: KRW one thousand)

	Total measurement									
	Fair value disclosed but not measured at fair value in the balance sheet									
	Financial assets, Classification									Financial assets, Total classification
	Long-term investment assets									
	Standigm Inc.	J2H Biotech Co., Ltd. (Note)	Oncobix Co., Ltd.	Yongyeon District 4 Industrial Water Management Association	SML Biopharma Co., Ltd.	Sunflower Therapeutics PBC	K-Bio Vaccine Fund	CLIPS BNC Co., Ltd.	Fina Biosolutions LLC	
Financial assets	3,000,008	1,500,052	999,980	419,199	1,000,001	2,940,000	1,510,550	500,006	4,410,000	16,279,796

There were no significant transfers between Level 1 and Level 2 of the fair value hierarchy during the period.

Adjustments to changes in fair value measurement, Assets

(Unit: KRW one thousand)

	Total measurement		
	Fair value		
	Assets		
	Long-term investment assets		Derivatives
	Financial assets measured at fair value through profit or loss	Financial assets measured at fair value through other comprehensive income	
	All levels of the fair value hierarchy		
	Fair value hierarchy Level 3		

Beginning assets	58,536,974	4,000,114	5,055,776
Purchase, Fair value measurement, Assets	6,944,558	4,174,500	0
Sale, Fair value measurement, Assets	(549,000)	0	0
Gains (losses) recognized in profit or loss (excluding foreign exchange differences), fair value measurement, assets	1,495,931	(822,108)	3,729,220
Others, fair value measurement, assets	0	235,500	0
Ending assets	66,428,463	7,588,006	8,784,996

(Note 1) Others, fair value measurement, assets: The effect of exchange rate fluctuations is included.

Adjustments to changes in fair value measurement, Liabilities

(Unit: KRW one thousand)

	Total measurement
	Fair value
	Liabilities
	Derivatives
	All levels of the fair value hierarchy
	Fair value hierarchy Level 3
Beginning liabilities	0
Purchase, Fair value measurement, Liabilities	0
Disposal, fair value measurement, liabilities	0
Gains (losses) recognized in profit or loss (excluding foreign exchange differences), fair value measurement, Liabilities	429,063
Others, fair value measurement, liabilities	0
Ending liabilities	429,063

(Note 1) Others, fair value measurement, liabilities: The effect of exchange rate fluctuations is included.

36 Assets Held for Sale

During the previous period, the controlling company decided to sell its entire ownership stake in the subsidiary, SK Chemicals (Suzhou) Co., Ltd. Assets and liabilities held for sale have been classified as assets and liabilities held for sale, and the sale was completed during the period.

Disclosure of analysis of discontinued operations by individual amount

Previous period

(Unit: KRW one thousand)

	Continuing operations						
	Discontinued operations						
	Assets and liabilities						Total assets and liabilities
	Assets				Liabilities		
	Cash and cash equivalents	Trade and other receivables	Tangible assets	Right-of-use assets	Trade and other payables	Other liabilities	
Non-current assets or disposal groups classified as held for sale or distribution to owners	8,242,208	4,059,213	1,660,561	220,750			14,182,732
Liabilities included in disposal groups classified as held for sale					14,889	2,197	17,086

37 Business Combinations

The subsidiary, SK bioscience Germany GmbH, acquired the shares of IDT Biologika GmbH and new shares through a third-party allocated capital increase, as well as the shares of Technik-Energie-Wasser Servicegesellschaft mbH, in October 2024, with the aim of enhancing corporate value through securing management control.

The consolidated companies have decided to measure the non-controlling interest in the acquired company based on the proportion of its share in the identifiable net assets of the acquired company.

Disclosure of detailed information regarding the business combination

		Total business combination	
		Business combination	
		IDT Biologika GmbH	Technik-Energie- Wasser Servicegesellschaft mbH
Assets recognized as of the acquisition date		885,187,710	82,046,719
Assets recognized as of the acquisition date	Cash and cash equivalents recognized as of the acquisition date	140,306,420	9,616,830
	Financial assets recognized as of the acquisition date	484,559	0
	Trade receivables and other receivables recognized as of the acquisition date	69,170,579	10,097,997
	Inventory recognized as of the acquisition date	122,914,060	7,834,866
	Other assets recognized as of the acquisition date	7,698,818	229,182
	Tangible assets recognized as of the acquisition date	473,428,710	53,974,547
	Identifiable intangible assets recognized	42,316,588	17,917

	as of the acquisition date		
	Investment properties recognized as of the acquisition date	6,433,388	0
	Right-of-use assets recognized as of the acquisition date	1,721,320	243,570
	Deferred tax assets recognized as of the acquisition date	20,713,268	31,810
Liabilities recognized as of the acquisition date		(408,256,257)	(19,836,969)
Liabilities recognized as of the acquisition date	Accounts payable and other payables recognized as of the acquisition date	(54,414,317)	(5,016,192)
	Liabilities recognized as of the acquisition date	(1,721,320)	(243,570)
	Unpaid income taxes recognized as of the acquisition date	(75,902)	(1,547,405)
	Other liabilities recognized as of the acquisition date	(63,414,112)	(3,287,985)
	Provisions recognized as of the acquisition date	(42,908,103)	(3,386,641)
	Borrowings recognized as of the acquisition date	(181,309,380)	0
	Deferred tax liabilities recognized as of the acquisition date	(64,413,123)	(6,355,176)
Fair value of net assets recognized as of the acquisition date		476,931,453	62,209,750
Non-controlling interest in the acquiree recognized as of the acquisition date		(187,672,527)	(24,883,900)
Identifiable net assets acquired		289,258,926	37,325,850
Goodwill recognized as of the acquisition date		55,351,342	
Bargain purchase gain recognized in a bargain purchase transaction			(15,255,345)
Total consideration transferred, fair value as of the acquisition date		344,610,268	22,070,505

Disclosure of detailed information regarding the business combination, cash flows

(Unit: KRW one thousand)

	Total business combination	
	Business combination	
	IDT Biologika GmbH	Technik-Energie-Wasser Servicegesellschaft mbH
Cash held by the acquired subsidiary	140,306,420	9,616,830
Transferred cash	(344,610,268)	(22,070,505)
Cash flows related to the business combination	(204,303,848)	(12,453,675)

Revenue and profit or loss of the acquiree since the acquisition date

(Unit: KRW one million)

	IDT Biologika GmbH	Technik-Energie-Wasser Servicegesellschaft mbH
Revenue (loss) of the acquiree since the acquisition date	388,186	2,421
Profit (loss) of the acquiree since the acquisition date	(77,556)	11,580
Revenue of the combined entity assuming the business combination occurred at the beginning	2,013,707	1,681,375
Profit or loss of the combined entity assuming the business combination occurred at the beginning	(101,188)	(5,347)

The fair value of the acquired assets and assumed liabilities, non-controlling interest, and consideration transferred as of the business combination date for the consolidated companies are provisional amounts.

If new information obtained within one year from the acquisition date requires adjustments to the amounts recognized on the acquisition date, or if additional provisions related to conditions existing on the acquisition date need to be recognized, such adjustments will be made in the accounting for the business combination.

4. Financial Statements

4-1. Statement of Financial Position

Statement of Financial Position

The 8th Period as of December 31, 2024
The 7th Period as of December 31, 2023
The 6th Period as of December 31, 2022

(Unit: KRW)

	The 8th Period	The 7th Period	The 6th Period
Assets			
Current assets	687,110,222,333	673,098,061,775	645,372,556,816
Cash and cash equivalents	177,060,265,702	245,211,541,679	119,021,281,023
Short-term financial instruments	0	0	60,299,856,319
Trade and other receivables	229,892,300,638	178,457,587,999	201,878,626,367
Current derivative financial assets	0	215,848,836	0
Current inventories	275,552,320,347	232,088,238,896	244,284,687,595
Other current assets	4,605,335,646	5,705,093,360	8,468,354,507
Non-current assets or disposal groups classified as held for sale or distribution to owners	0	11,419,751,005	11,419,751,005
Non-current assets	1,295,195,206,262	1,282,620,098,546	1,165,104,636,664
Long-term financial products	27,500,000	27,500,000	27,500,000
Non-current derivative assets	8,784,996,485	5,055,776,136	0
Long-term investment assets	63,477,943,702	60,037,005,604	37,128,190,250
Investments in subsidiaries, joint ventures, and associates	441,376,806,543	444,401,884,323	383,919,490,307
Tangible assets	696,520,615,207	693,308,754,458	661,774,467,404
Right-of-use assets	1,949,033,867	1,790,310,080	1,759,660,337
Intangible assets other than goodwill	37,335,223,125	30,267,026,107	32,019,684,682

Investment real estate properties	17,255,302,782	17,297,334,222	17,339,365,662
Other non-current assets	2,307,455,589	1,991,164,589	3,115,139,356
Non-current net defined benefit assets	23,549,909,941	23,877,527,090	27,038,748,434
Deferred income tax assets	2,610,419,021	4,565,815,937	982,390,232
Total Assets	1,982,305,428,595	1,955,718,160,321	1,810,477,193,480
Liabilities			
Current liabilities	570,288,738,549	652,684,624,167	535,148,432,470
Accounts payable and other current liabilities	178,799,913,495	188,916,425,124	151,015,407,038
Current borrowings (including bonds)	255,350,258,489	238,989,048,940	273,359,823,015
The portion of non-current borrowings (including bonds) that is replaced by liquidity	101,636,680,087	192,405,128,296	65,978,484,288
Current derivative liabilities	3,960,791,997	81,934,323	0
Current lease liabilities	1,053,864,669	844,576,287	838,788,199
Current contract liabilities	9,977,358,888	4,812,601,259	4,105,993,293
Current provisions for liabilities	321,882,893	12,476,761,297	19,326,700,000
Current income tax liabilities	15,416,017,883	7,249,206,994	13,816,417,201
Other current liabilities	3,771,970,148	6,908,941,647	6,706,819,436
Non-current liabilities	234,634,350,580	179,146,772,609	155,730,714,611
The non-current portion of non-current bonds	219,404,968,938	164,557,090,565	154,787,348,542
The non-current portion of non-current borrowings from financial institutions (excluding bonds) that is replaced by liquidity	8,333,310,000	7,650,000,000	0
Non-current lease liabilities	938,923,147	982,533,549	943,366,069
Non-current portion of provisioning liabilities	5,957,148,495	5,957,148,495	0
Total liabilities	804,923,089,129	831,831,396,776	690,879,147,081
Equity			
Capital	98,793,505,000	98,793,505,000	98,793,505,000
Capital surplus	157,915,326,106	157,915,326,106	157,915,326,106
Components of other equity	(12,644,103,915)	(12,644,103,915)	(12,644,103,915)
Retained earnings (losses)	933,317,612,275	879,822,036,354	875,533,319,208
Total equity	1,177,382,339,466	1,123,886,763,545	1,119,598,046,399
Total liabilities and stockholders' equity	1,982,305,428,595	1,955,718,160,321	1,810,477,193,480

4-2. Statement of Comprehensive Income

Statement of Comprehensive Income

The 8th Period From 2024.01.01 to 2024.12.31

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

(Unit: KRW)

	The 8th Period	The 7th Period	The 6th Period
Revenue (Sales)	1,340,527,392,476	1,232,925,641,365	1,256,030,178,624
Cost of sales	1,007,720,252,924	947,103,926,906	956,492,002,988
Gross profit	332,807,139,552	285,821,714,459	299,538,175,636
Selling and administrative expenses	221,714,892,424	200,386,437,771	192,011,238,386
Operating profit (loss)	111,092,247,128	85,435,276,688	107,526,937,250
Non-operating income	(22,510,083,032)	(29,414,821,782)	(19,126,232,787)
Other revenue	14,163,321,617	23,667,872,352	6,950,988,177
Other losses	23,352,412,780	41,680,756,525	17,565,112,804
Financial income	51,149,934,187	39,204,884,498	57,716,968,597

Financial cost	64,470,926,056	50,606,822,107	66,229,076,757
Net income (loss) before income tax expenses	88,582,164,096	56,020,454,906	88,400,704,463
Corporate tax expense (income)	18,414,894,294	14,266,718,520	19,130,274,915
Net income (loss)	70,167,269,802	41,753,736,386	69,270,429,548
Other comprehensive income	(4,099,684,781)	(8,581,321,440)	9,408,526,514
Items not reclassified to profit or loss (after-tax other comprehensive income)	(4,099,684,781)	(8,581,321,440)	9,408,526,514
Remeasurement gains and losses of the defined benefit plan (After-tax other comprehensive income)	(4,099,684,781)	(8,581,321,440)	9,408,526,514
Total comprehensive income	66,067,585,021	33,172,414,946	78,678,956,062
Earnings per share (EPS)			
Earnings (Loss) per common stock (Unit: KRW/share) (Unit: KRW)	3,651	2,171	3,586
Diluted earnings (loss) per share (Unit: KRW/share) (Unit: KRW)	3,650	2,169	3,575
Basic EPS for preferred stock (loss) (Unit: KRW)	3,701	2,221	3,636

4-3. Statement of Changes in Equity

Statement of Changes in Equity

The 8th Period From 2024.01.01 to 2024.12.31

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

(Unit: KRW)

	Equity				
	Capital	Capital surplus	Components of other equity	Retained earnings	Total equity
2022.01.01 (capital at beginning of period)	98,681,045,000	155,974,381,098	(12,345,389,915)	913,274,078,924	1,155,584,115,107
Net income (loss)	0	0	0	69,270,429,548	69,270,429,548
Remeasurement gains and losses of the defined benefit plan (After-tax other comprehensive income)	0	0	0	9,408,526,514	9,408,526,514
Increase (decrease) due to share-based payment transactions	112,460,000	1,940,945,008	(298,714,000)	0	1,754,691,008
Dividends recognized as distributions to owners	0	0	0	(66,437,113,800)	(66,437,113,800)
Acquisition of treasury stock	0	0	(49,982,601,978)	0	(49,982,601,978)
Retirement of treasury stock	0	0	49,982,601,978	(49,982,601,978)	0
2022.12.31 (capital at end of period)	98,793,505,000	157,915,326,106	(12,644,103,915)	875,533,319,208	1,119,598,046,399
2023.01.01 (capital at beginning of period)	98,793,505,000	157,915,326,106	(12,644,103,915)	875,533,319,208	1,119,598,046,399
Net income (loss)	0	0	0	41,753,736,386	41,753,736,386
Remeasurement gains and losses of the defined benefit plan (After-tax other comprehensive income)	0	0	0	(8,581,321,440)	(8,581,321,440)
Increase (decrease) due to share-based payment transactions	0	0	0	0	0
Dividends recognized as distributions to owners	0	0	0	(28,883,697,800)	(28,883,697,800)
Acquisition of treasury stock	0	0	0	0	0
Retirement of treasury stock	0	0	0	0	0
2023.12.31 (capital at end of period)	98,793,505,000	157,915,326,106	(12,644,103,915)	879,822,036,354	1,123,886,763,545
2024.01.01 (capital at beginning of period)	98,793,505,000	157,915,326,106	(12,644,103,915)	879,822,036,354	1,123,886,763,545
Net income (loss)	0	0	0	70,167,269,802	70,167,269,802
Remeasurement gains and losses of the defined benefit plan (After-tax other comprehensive income)	0	0	0	(4,099,684,781)	(4,099,684,781)
Increase (decrease) due to share-based payment transactions	0	0	0	0	0
Dividends recognized as distributions to owners	0	0	0	(12,572,009,100)	(12,572,009,100)
Acquisition of treasury stock	0	0	0	0	0
Retirement of treasury stock	0	0	0	0	0
2024.12.31 (capital at end of period)	98,793,505,000	157,915,326,106	(12,644,103,915)	933,317,612,275	1,177,382,339,466

4-4. Statement of Cash Flows

Statement of Cash Flows

The 8th Period From 2024.01.01 to 2024.12.31

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

(Unit: KRW)

	The 8th Period	The 7th Period	The 6th Period
Cash flows from operating activities	21,805,050,994	141,767,040,414	(58,255,118,545)
Net income (loss)	70,167,269,802	41,753,736,386	69,270,429,548
Adjustments for net income reconciliation	106,039,636,981	84,769,885,745	99,406,824,404
Changes in assets and liabilities due to operating activities	(129,191,440,736)	55,609,214,568	(137,690,046,624)
Interest received	10,721,217,215	4,617,858,210	1,731,141,535
Interest paid	(30,660,450,570)	(25,337,121,945)	(15,118,134,622)
Dividends received	1,790,000,000	2,190,000,000	2,990,000,000
Corporate tax paid, operating activities	(7,061,181,698)	(21,836,532,550)	(78,845,332,786)
Cash flows from investment activities	(53,018,710,857)	(95,310,672,516)	72,500,789,344
Disposal of short-term financial instruments	0	62,314,943,170	156,601,754,137
Decrease in loans receivable	600,000,000	360,000,000	350,000,000
Decrease in lease deposits	14,440,000	55,165,666	52,478,288
Disposal of long-term financial products	0	0	5,000,000
Decrease in long-term investment assets	549,000,000	410,558,210	0
Disposal of tangible assets	10,217,310	22,775,100	1,306,234,469
Disposal of intangible assets	1,060,000,000	520,000	1,264,591,806
Disposal of investment assets in affiliated companies	0	0	288,722,533
Disposal of non-current assets or disposal groups classified as held for sale or distribution non-current bonds	20,774,468,068	0	0
Increase in lease deposits	(89,180,000)	(110,000,000)	(463,583,831)
Acquisition of long-term investment assets	(2,678,207,933)	(2,079,993,210)	(2,398,239,735)
Acquisition of tangible assets	(62,968,084,392)	(86,641,315,293)	(62,133,918,807)
Acquisition of intangible assets	(10,291,363,910)	(3,549,326,159)	(8,934,629,516)
Acquisition of investments in subsidiaries	0	(66,094,000,000)	(13,437,620,000)
Cash flows from financing activities	(33,528,908,252)	79,722,242,679	2,573,701,530
Increase in short-term borrowings	150,000,000,000	70,000,000,000	288,072,600,368
Increase in long-term borrowings	9,800,000,000	10,200,000,000	0
Increase in bonds payable	149,347,606,800	199,140,850,000	0
Cash inflows from the exercise of stock options	0	0	1,744,874,808
Repayment of short-term borrowings	(139,203,147,472)	(103,823,280,699)	(10,000,000,000)
Repayment of bonds payable	(190,000,000,000)	(66,000,000,000)	(160,000,000,000)
Payment of finance lease liabilities	(902,180,280)	(913,515,092)	(829,098,668)
Cash outflows due to the acquisition of treasury shares	0	0	(49,982,601,978)
Payment of dividends	(12,571,187,300)	(28,881,811,530)	(66,432,073,000)
Net increase (decrease) in cash and cash equivalents before the effect of exchange rate fluctuations	(64,742,568,115)	126,178,610,577	16,819,372,329
Cash and cash equivalents	245,211,541,679	119,021,281,023	102,201,908,694
Effect of exchange rate fluctuations on cash and cash equivalents	(3,408,707,862)	11,650,079	0
Cash and cash equivalents at end of period	177,060,265,702	245,211,541,679	119,021,281,023

5. Notes to the Financial Statements

1. General Information

SK chemicals Co., Ltd. (hereinafter referred to as "the Company") was established through a spin-off from SK discovery Co., Ltd. (formerly, SK Chemicals Co., Ltd.) on December 1, 2017, with the purpose of manufacturing and selling synthetic resins and related products, and developing, producing, and selling pharmaceuticals and vaccines. The Company was re-listed on the Korea Exchange KOSPI market on January 5, 2018, and is headquartered in Seongnam-si, Gyeonggi-do, with manufacturing facilities in Ulsan and Cheongju.

On May 1, 2018, the Company merged with SK petrochemical Co., Ltd., a subsidiary in which it holds 100% of the stake, and on July 1, 2018, the date of split-off, established SK bioscience Co., Ltd. for the development and production of vaccines through a physical split-off. Furthermore, the Company established SK Multi-Utility Co., Ltd. for the purpose of supplying utilities through a physical split-off on December 1, 2021, the date of split-off.

As of the end of the reporting period, the status of major shareholders (including preferred stocks) of the Company is as follows.

Name of shareholder	Common stocks		Preferred stocks	
	Number of shares held (stocks)	Equity interest (%)	Number of shares held (stocks)	Equity interest (%)
SK Discovery Co., Ltd.	7,056,899	40.90	-	-
SK chemicals Co., Ltd. (Treasury shares)	30,857	0.18	148,133	7.00
Others	10,166,027	58.92	1,967,296	93.00
Total	17,253,783	100.00	2,115,429	100.00

The Company's financial statements were approved by Board of Directors on February 7, 2025, and are scheduled to be finalized at the General Shareholders' Meeting on March 26, 2025.

2. Significant Accounting Policies and Basis of Preparation

2-1 Preparation standards for the financial statements

The financial statements of the Company have been prepared in accordance with the Korean International Financial Reporting Standards (K-IFRS) enacted in accordance with the Act on External Audit of Stock Companies, Etc.

The financial statements are prepared on a historical cost basis, excluding the liabilities and equity interest's financial assets measured at fair value. The book amounts of assets and liabilities designated as hedging targets for fair value hedging are not recorded at amortized cost, but are recorded by reflecting the changes in the fair value corresponding to the risks hedged within an effective hedging relationship. These financial statements are presented in the Korean won and are also expressed in Korean won unless otherwise provided.

2-2 Subsidiaries, affiliates, and joint ventures

The Company's financial statements are separate financial statements prepared in accordance with Corporate Accounting Standard No. 1027, and the investment assets of subsidiaries, affiliates and joint ventures are presented as accounting practiced based on direct equity investment rather than based on the reported performance and net assets of the investee. The Company has chosen the cost method for accounting for investments in subsidiaries, associates, and joint ventures,

in accordance with K-IFRS No. 1027. However, as for all investments in subsidiaries, affiliates and joint ventures, Corporate Accounting Standard No. 1101 (first adoption of the K-IFRS) was applied and the book amount according to the previous accounting standards on the date of transition to the K-IFRS was used for the deemed cost, and the cost method was applied. Meanwhile, the dividends received from subsidiaries, affiliates and joint ventures are recognized as profit or loss when the right to receive dividends is confirmed.

2-3 Foreign currency translation

The Company presents its financial statements in the Korean won, the Company's functional currency.

(1) Transactions and balance

In preparing the Company's financial statements, transactions conducted in a currency other than the functional currency are recorded at the exchange rate on the date of transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate of the functional currency as of the end of the reporting period.

The translation differences arising therefrom are reflected in the profit or loss.

The foreign currency-denominated non-monetary items measured at historical cost are recognized by applying the exchange rate on the date of the initial transaction, while those measured at fair value are recognized by applying the exchange rate on the date of fair value measurement. Profits or losses arising from the translation of non-monetary items are recognized as other comprehensive income or profit or loss in the same manner as the profits or losses arising from the changes in the fair value of the items.

The date of the transaction intended for determining the exchange rate to use for the initial recognition of the related assets, expenses or income (or any portion thereof) is the date on which the Company first recognizes the non-monetary assets or non-monetary liabilities based on the advance payment or receipt of consideration. In cases where advance payments or advance collections are made over multiple periods, the Company determines the transaction date for each advance payment or advance collection separately.

2-4 Profits from the contracts with customers

The Company operates two business divisions: Green Chemicals and Life Science. The Green Chemicals Business Division produces and sells PET resins, highly functional PETG resins, industrial adhesives, and related products, while the Life Science Business Division is engaged in the pharmaceutical business. In contracts with customers, the Company recognizes revenue as the amount it expects to receive as consideration for goods or services when the control of the goods or services is transferred to the customer. The Company has reached the conclusion for itself since it controls each of the goods or services specified under the contracts with the customers before the goods or services are provided to the customers.

(1) Sales of goods

Sales profits of goods are generally recognized upon the delivery of the goods, where the control of the assets is transferred to the customers. The typical recovery period for receivables is 30 to 90 days after delivery. The Company considers whether other promises within the contract constitute separate performance obligations to which a portion of the transaction price should be allocated. In calculating the transaction price for the sales of goods, the Company considers variable consideration, significant financing factors, non-cash consideration and the consideration payable to the customers.

① Variable consideration

As for the contract for supplying goods to its customers, the Company may have the consideration received or to be received from the customers changed since it provides discounts and incentives for the purpose of increasing the customers' sales or allows for returns of goods. If the contract includes variable consideration, the Company estimates the amount it will receive in consideration for transferring the promised goods to the customer. When the uncertainties associated with the variable consideration are later addressed, the variable consideration is estimated at the point of commencement of the contract and is included in the transaction price only to the extent that it is highly probable that a significant portion of the amount of accumulated profits recognized will not be returned. Some contracts provide the customers with the right to return goods and quantity rebates.

The right to return goods and quantity rebates are equivalent to the variable consideration.

- Right of return

Certain contracts provide the customers with the right to return goods within a certain period. As a method of estimating goods which will not be returned, the Company uses the expected values which are expected to better predict the consideration to which it will be entitled. Among the requirements of Corporate Accounting Standard No. 1115, the restrictions on the estimation of variable consideration are also applied even when the amount of variable consideration included in the transaction price is determined. The Company recognizes the goods which are expected to be returned, not as profits, but as the refund liabilities. The right to the returned goods and the corresponding adjustment for the cost of goods sold are recognized.

- Quantity rebate

The Company provides quantity rebates retroactively to previous purchases if the purchase exceeds the specified limit in the contract for certain customers. The rebate is deducted from the amount payable by the customer. To estimate the variable consideration for the rebate expected in the future, the Company applies the most probable method for contracts with only one quantity criterion and the expected value method for the contracts with multiple quantity criteria. The Company considers the number of quantity criteria under the contract as a key factor in selecting the method which best predicts the variable consideration. The Company recognizes the refund liabilities for the anticipated future rebates by applying the requirements for the variable consideration's constraints.

② Significant financial elements

By applying the practical expedient method of Corporate Accounting Standard No. 1115, the Company, when commencing the contract, does not reflect the effect of a significant financing component on the promised consideration (amount) if the period between the point of transferring the promised goods or services to the customer and the point of paying the consideration thereto is expected to be 1 year or less.

(2) Contract balance

① Contract assets

A contract asset is the right to receive consideration for the goods or services transferred to a customer. If the Company transfers goods or services to a customer before the customer pays the consideration or before the date on which payment is due, the asset which is the company's right to take consideration and whose right is subject to conditions other than the lapse of time is a contract asset. The contract assets are assessed for impairment.

② Trade receivables

A receivable is recognized when an amount of unconditional consideration is due for payment by and from the customer (that is, where only the lapse of time is required before the consideration is paid upon maturity). For the financial assets related accounting policies, refer to Note 2-8.

③ Contract liabilities

A contract liability is a company's obligation to transfer goods or services to a customer equivalent to the consideration which the Company has already taken from the customer (or the consideration for which the payment is due). If the customer pays the consideration before the Company transfers goods or services to the customer, the contract liabilities are recognized when it is paid or when it is due, whichever is earlier. The contract liabilities are recognized as profits when the Company carries out its performance obligations pursuant to the contract.

(3) Assets and liabilities arising from the right to return

① Right to recover the returned product

The right to recover the returned product is the Company's right to recover a product which the customer is expected to return. The assets are measured at the existing book amount of inventories minus the expected cost of recovering the products and any potential reduction in the value of the products returned.

② Refund liabilities

A refund liability is an obligation to return a portion or all of the consideration received or receivable from the customer. It is measured as the amount the Company expects to ultimately refund to the customer. The Company updates the estimates of refund liabilities and changes in the transaction price accordingly at the end of each fiscal period. The above accounting policy refers to variable consideration.

Refer to Note 3 for the disclosures on significant judgments, estimates and assumptions related to the profits from contracts with the customers.

2-5 Government subsidies

Government subsidies are recognized if and when there is a reasonable assurance of the receipt of the subsidies and the fulfillment of ancillary conditions therefor. Profit-related subsidies are recognized as income in line with a systematic standard over the period needed to match the costs associated with the costs they are intended to cover. Asset-related subsidies are recognized as deferred revenue, and the same amount is recognized as deferred revenue and amortized to income each year over the useful life of the related assets.

When non-monetary assets are received as subsidies, the Company records the assets and subsidies in nominal amounts and recognizes them as revenue in the statement of income on a straight-line basis over the estimated useful lives of the related assets. When a loan or similar aid is provided and received at an interest rate lower than the market rate, the benefit from the lower interest rate is recognized as an additional government grant.

2-6 Corporate tax

(1) Current income tax

The current tax liabilities (assets) for the current and previous periods are measured at the amount expected to be paid to (refunded by and from) the tax authorities using the tax rates and tax laws enacted or substantively enacted by the end of the current period.

The current income tax related to the items directly reflected in equity are reflected in equity, and are not reflected in the statements of income. The senior management regularly assesses the recoverability of the amount of corporate tax refund in connection with the interpretation of relevant tax laws and establishes provisioning liabilities as needed.

(2) Deferred tax

For the purpose of financial reporting of the assets and liabilities, the Company recognizes the deferred income tax assets and deferred income tax liabilities for temporary differences, which are the differences between the book amount and the tax reference amount.

The Company recognizes the deferred income tax liabilities for all taxable temporary differences, except under the following circumstances:

- Where deferred income tax liabilities arise when the goodwill is initially recognized
- Where deferred income tax liabilities arise from transactions which do not affect the accounting profits or taxable income at the time of the transaction, not a business combination transaction in which assets or liabilities are initially recognized
- Where it is highly probable that the temporary differences will not be extinct in the foreseeable future as they are taxable temporary differences in connection with the investment interest in subsidiaries, affiliates and joint ventures, and where the point in time of the extinction of the temporary difference may be controlled

Furthermore, deferred income tax assets are recognized when it is highly probable that the taxable income can be used for deductible temporary differences and unused tax credits and tax losses, except in the following cases:

- Where deferred income tax assets arise from transactions which do not affect the accounting profits or taxable income at the time of the transaction, not a business combination transaction in which assets or liabilities are initially recognized
- Where deductible temporary differences exist in connection with the investment interest in subsidiaries, affiliates, and joint ventures, and where it is not highly probable that the temporary differences will be extinguished in the foreseeable future, or where it is not probable that the taxable income for which the temporary difference can be used will arise

The book amount of the deferred income tax assets is reviewed at the end of each reporting period. If it is no longer probable that a sufficient taxable income will be available to use the benefits of some or all of the deferred income tax assets, the book amount of the deferred income tax assets is reduced. Meanwhile, the reduced amount is reversed to the extent that it is highly likely that a sufficient taxable income will be generated for use. Furthermore, at the end of each reporting period, the unrecognized deferred income tax assets are reviewed, and the previously unrecognized deferred income tax assets are recognized to the extent that it is highly probable that the deferred income tax assets will be recovered based on the future taxable income.

The deferred income tax assets and liabilities are measured using the tax rates expected to be applied for the fiscal period in which the assets are realized or liabilities are settled based on the tax rates (and the tax laws) enacted or substantively enacted by the end of the reporting period.

The current and deferred tax related to the items recognized other than the profit or loss are recognized as items other than profit or loss. The deferred tax items are recognized as other comprehensive income or reflected directly in equity depending on the relevant transaction.

If the tax benefits acquired as a part of a business combination did not satisfy the separate recognition criteria at the relevant point in time, yet were recognized during the measurement period as a result of new information on the facts and circumstances existing on the date of acquisition, the relevant deferred tax benefits are recognized. The recognized acquired deferred tax benefits are applied to reduce the book amount of the goodwill related to the acquisition, and if the book amount of the goodwill is zero, the remaining deferred tax benefits are recognized as profit or loss.

The Company is entitled to legally enforce the offset of the current tax assets and current tax liabilities, and if the taxable companies are the same, or if the taxable companies are different yet there is an intention to settle the current tax liabilities and assets in a net amount, or if there is an intention to settle the liabilities at the same time as realizing the assets for each fiscal period in the future where the deferred income tax liabilities are settled or the deferred income tax assets are recovered in a significant amount, the deferred income tax assets and deferred income tax liabilities are appropriated and presented only if and when the deferred income tax assets and deferred income tax liabilities are related to the same tax authority.

(3) Sales tax

Revenue, expenses and assets are recognized as the net amount minus applicable sales tax. However, if the sales tax related to the purchase of an asset or service cannot be refunded by and from the tax authorities, it is recognized as part of the acquisition cost or part of the expense item. The relevant receivables and liabilities are presented as the amount including the sales tax.

The net amount of the sales tax to be refunded by or payable to the tax authority is included in the receivables or liabilities in the statement of financial position.

2-7 Retirement benefits

The Company operates a defined benefit retirement pension plan, and the plan's benefit cost is determined using the projected unit credit method. The actuarial profits and losses, revenue from the plan assets excluding the amount included in the net interest, and the remeasurement elements consisting of changes in the effect of the ceiling on asset recognition excluding the amount included in the net interest are recognized as other comprehensive income immediately when incurred and are not subsequently reclassified as profit or loss.

The past service cost is recognized as an expense based whichever is the earlier of the following:

- When the plan is revised or reduced
- When the relevant restructuring costs or termination benefits are recognized

Net interest is determined by multiplying the net defined benefit liabilities (assets) by the discount rate. The Company recognizes the service cost and the net interest on the net defined benefit liabilities as profit or loss for the items of the cost of goods sold and the selling, general and administrative expenses.

Meanwhile, the Company operates a defined contribution plan for some of the executives and employees, and the contribution is recognized as an expense when the executives and employees provide service at work. The expense recognized in profit or loss related to the defined contribution plan during the period is 445,456 thousand KRW (previous year: 456,371 thousand KRW).

2-8 Financial instruments: initial recognition and subsequent measurement

A financial instrument is any contract which creates a financial asset for one of the parties to a transaction and a financial liability or equity instrument for the other party to the transaction.

(1) Financial assets

1) Initial recognition and measurement

Financial assets are classified into financial assets measured at amortized cost upon initial recognition, financial assets measured at fair value through other comprehensive income, and financial assets measured at fair value through profit or loss.

The classification of financial assets upon initial recognition varies depending on the contractual cash flows' characteristics of the financial assets and the business model of the Company for managing the financial assets. Excluding the trade and other receivables which do not contain a significant financial element or for which the practical expedient method is applied, the Company initially measures the financial assets at fair value, and unless they are not the financial assets measured at fair value through profit or loss, they add or subtract the transaction cost. Trade and other receivables, which do not include a significant financing element or for which the practical expedient method is not applied, are measured at the transaction cost determined in accordance with Corporate Accounting Standard No. 1115.

To measure the financial assets at amortized cost or fair value through other comprehensive income, the cash flows must consist of solely payments of principal and interest (SPPI). This assessment is called the SPPI test and is performed at the level of the individual instrument. Please refer to Note 2-4 on the accounting policy for revenue.

The Company's business model for the management of financial assets relates to the management of financial assets intended to generate cash flows. The business model determines whether the source of cash flows is the receipt or sale of the contractual cash flows of the financial assets, or whether it is both.

The purchase or sale of financial assets (standardized transaction) in which the financial assets are required to be transferred within a time frame established by market agreement or regulation is recognized on the date of transaction. That is, it is recognized on the date on which the Company agrees to purchase or sell the financial assets.

2) Subsequent measurements

For the subsequent measurements, the financial assets are classified into the following four categories:

- Financial assets measured at amortized cost (debt instruments)
- Financial assets measured at fair value through other comprehensive income (debt instruments), with accumulated gains or losses recycled to profit or loss
- Financial assets measured at fair value through other comprehensive income (equity instruments), with accumulated gains or losses not recycled to profit or loss
- Financial assets measured at fair value through profit or loss

① Financial assets measured at amortized cost (debt instruments)

The Company measures the financial assets at amortized cost if and when all of the following terms and conditions are satisfied.

- Under a business model whose objective is to hold financial assets to collect contractual cash flows,
- the financial asset generates cash flows consisting solely of payments of principal and interest on the principal amount outstanding, in accordance with the terms of the financial asset.

The financial assets measured at amortized cost are subsequently measured using the effective interest rate (EIR) method, and the impairment is recognized. The profits and losses arising from the derecognition, change or impairment of assets are recognized as profit or loss.

② Financial assets measured at fair value through other comprehensive income (debt instruments)

The Company measures the debt instruments which satisfy all of the following terms and conditions as financial assets at fair value through other comprehensive income.

- Financial assets are held under a business model which achieves purposes through both the receipt of contractual cash flows and the sale of financial assets, and
- According to the contractual terms and conditions of financial assets, cash flows consist only of principal and interest payments which are generated on a specific date.

For the debt instruments measured at fair value through other comprehensive income, the interest income, foreign currency translation profits and losses, and impairment or reversal are calculated in the same manner as financial assets measured at amortized cost and are recognized as profit or loss. The rest of the changes in fair value are recognized as other comprehensive income. When the financial assets are derecognized, the accumulated change in fair value recognized as other comprehensive income is recirculated as profit or loss.

③ Financial assets measured at fair value through other comprehensive income (equity instruments)

Upon the initial recognition, the Company can make an irrevocable selection to measure the equity instruments which satisfy the definition of equity under Corporate Accounting Standard No. 1032 'Presentation of Financial Instruments' and which are not held for investment purposes at fair value through other comprehensive income.

The profits and losses arising from such financial assets are not recirculated as profit or loss. Dividends are recognized in the statement of income as other income and accounted for as other comprehensive income when the entitlement is confirmed, except when the Company gains profits by recovering a portion of the cost of the financial assets. Other comprehensive income - equity instruments measured at fair value are not subject to impairment recognition.

The Company can also make irrevocable selections for the unlisted equity instruments.

④ Financial assets measured at fair value through profit or loss

Financial assets measured at fair value through profit or loss include trading items, financial assets designated for measurement at fair value through profit or loss upon initial recognition, or financial assets required to be measured at fair value. Financial assets acquired for the purpose of sale or repurchase within a short period are classified as the trading items. Derivatives, including separated embedded derivatives, are classified as the trading items unless they are designated as effective hedging instruments. The financial assets whose cash flows are not solely payments of principal and interest are classified and measured at fair value through profit or loss, regardless of the business model. As described in the above paragraph, although debt instruments are classified as amortized cost or other comprehensive income - fair value measured financial assets, if the accounting mismatch can be eliminated or significantly reduced, the debt instruments can be designated to be measured at fair value through profit or loss.

The financial assets measured at fair value through profit or loss are presented at fair value in the statement of financial position. The net changes in fair value are recognized as profit or loss in the statement of income.

This category includes the derivatives and the traded equity instruments for which no irrevocable selection was made to account for the changes in fair value as other comprehensive income. The dividends for the traded equity instruments are recognized as profit or loss when the rights are confirmed.

As for the derivatives embedded in hybrid contracts, the economic characteristics and risks are not closely related to the main contract, and the separate instruments with the same conditions as the embedded derivative satisfy the definition of derivative, and if the hybrid contract is not measured at fair value through profit or loss, it is accounted for as derivative as a separate derivative from the main contract. The embedded derivatives are measured at fair value, and the changes in fair value are recognized as profit or loss. A reevaluation occurs only when and if there is a change in the terms and conditions of the contract which significantly changes the cash flows, or if it becomes not applicable for the category of fair value measurement through profit or loss.

In hybrid contracts for which the main contract is a financial asset, embedded derivatives are not accounted for separately. The financial assets and embedded derivatives, which are the main contracts, are classified as financial assets measured at fair value through profit or loss.

3) Derecognition

A financial asset (or a portion of a financial asset or of a group of similar financial assets) is derecognized with priority under the following circumstances:

- The right to receive cash flows from financial assets is extinct, or
- The Company transfers the right to receive cash flows from financial assets or is obligated to pass through the entire cash flows received under a pass-through agreement to a third party without significant delay. In such an event, the consolidated companies neither transfer substantially most of the risks and rewards of holding the financial assets, nor transfer or hold most of the risks and rewards of holding the financial assets, yet transfer the control over the assets.

When the Company transfers the right to receive cash flows from a financial asset or executes a pass-through contract, they assess whether they maintain the risks and rewards of owning the assets. If the Company has neither held nor transferred most of the risks and rewards of a financial asset, it would continue to recognize the financial asset to the extent that it continues to be involved with it. In such an event, the Company recognizes the relevant liabilities. The liabilities related to the transferred assets are measured by reflecting the rights and obligations of the Company.

The continuous involvement, which takes the form of providing guarantees, is measured either as the book amount of the assets transferred or the largest amount which may be required for repayment among the considerations received, whichever is the lesser.

4) Impairment of financial assets

The detailed disclosures made in connection with the impairment of financial assets are provided in the notes below.

- Disclosures on the significant assumptions- Note 3
- Trade receivables including contract assets - Note 5

The Company recognizes the allowance for expected credit loss (ECL) for all debt instruments, except for the items measured at fair value through profit or loss. The expected credit loss is estimated by discounting the differences between the cash flows agreed to be received under contract and all cash flows expected to be received by the Company, discounted at the initial effective interest rate. The expected cash flows include the cash flows from the disposal of collateral held or from other credit enhancements which are among the essential terms and conditions of the contract.

The expected credit loss is recognized in two stages. For credit exposures with no significant increase in the credit risk since the initial recognition, the expected credit loss reflects the credit losses (expected credit loss for 12 months) arising from any events of default likely to occur within the next 12 months. For credit exposures with a significant increase in the credit risk after the initial recognition, the loss allowance is required to measure the expected credit loss over the remainder of the surviving period for the exposure regardless of when an event of default occurs (expected credit loss over the entire period).

For the trade and other receivables and contract assets, the Company may apply the simplified method for the calculation of the expected credit loss. Thus, in lieu of tracking changes in the credit risk, the Company recognizes the loss allowance on each date of settlement as an amount equivalent to the expected credit loss over the entire period. The Company places a provisioning rate table based on the past credit loss experiences adjusted to reflect the future prospects for specific debtors and economic environments.

For the debt instruments measured at fair value through other comprehensive income, the Company applies the low credit risk expedient method. On each date of settlement, the Company assesses whether a debt instrument is considered to have a low credit risk using all reasonable and supportable information available without undue cost or effort. For such assessment, the Company re-evaluates the internal credit ratings of the relevant debt instrument. Furthermore, the Company considers whether there is a significant increase in the credit risk when the contractual payment exceeds 30 days.

If the Company's debt instruments measured at fair value through other comprehensive income consist only of the traded bonds with the highest investment rating, they are considered to be low-credit risk investment assets. The Company's policy is to measure such instruments at the 12-month expected credit loss. However, if there is a significant increase in the credit risk after the initial recognition, the loss allowance is calculated based on the expected credit loss over the entire period. The Company uses the ratings of credit rating agencies to determine whether the credit risk of debt instruments has significantly increased and measure the expected credit loss.

The Company considers it a default if any contractual payment is overdue for over 90 days. However, under certain circumstances, the Company may consider that an event of default has occurred against financial assets if and when internal or external information indicates that the Company will not be able to receive the principal in full under contract until all credit enhancements by the Company are considered. A financial asset is derecognized if and when there is no reasonable expectation of recovering the cash flows under contract.

(2) Financial liabilities

1) Initial recognition and measurement

Upon the initial recognition, financial liabilities are appropriately classified as financial liabilities measured at fair value through profit or loss, loans and borrowings, and the accounts payable or derivative instruments are designated as effective hedging instruments.

All financial liabilities are initially recognized at fair value, and the directly related transaction costs are deducted for loans, borrowings and payables.

The Company's financial liabilities include the trade payables and other accounts payable, loans and borrowings including overdrafts and the derivatives liabilities.

The Company classifies financial liabilities arising from supplier financing agreements as trade payables and other payables in the balance sheet if they are similar in nature and function to trade payables. This applies when the Company's supplier financing agreement forms part of working capital used within the normal operating cycle, the level of collateral provided is similar to that of trade payables,

and the terms of the liabilities arising from the supplier financing agreement are not substantially different from those of trade payables that are not subject to supplier financing agreements. When liabilities arising from supplier financing agreements are classified as trade payables and other payables in the balance sheet, the related cash flows are included in the operating activities section of the statement of cash flows.

2) Subsequent measurements

The measurement of financial liabilities is governed by the classifications mentioned below.

① Financial liabilities measured at fair value through profit or loss

Financial liabilities measured at fair value through profit or loss include the trading financial liabilities and the financial liabilities designated to be measured at fair value through profit or loss upon the initial recognition.

The financial liabilities are classified as trading items if they are repurchased within a short period. This category also includes the derivatives which are not designated as hedging instruments in a hedging relationship as defined in Corporate Accounting Standard No. 1109. Furthermore, the separated embedded derivatives are classified as trading items unless they are designated as effective hedging instruments.

Profits or losses on financial liabilities, which are trading items, are recognized as profit or loss.

The financial liabilities designated as items measured at fair value through profit or loss are designated only upon the initial recognition if the criteria provided under Corporate Accounting Standard No.1109 are satisfied. The Company has not designated any financial liabilities interest bearing loans fair value through profit or loss.

② Financial liabilities measured at amortized cost (loans and borrowings)

After the initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the effective interest method. Any profits or losses arising from the derecognition of a liability or from the effective interest rate amortization procedures is recognized as net profit or loss.

The amortized cost is calculated by taking into account any discounts or premiums for the fees or costs which form an essential part of the effective interest rate.

This category is generally applied for interest-bearing loans or borrowings.

3) Derecognition of financial liabilities

Financial liabilities are derecognized when the related obligations are discharged, canceled or expire. If an existing financial liability is exchanged for a financial liability with the same lender but under substantially different terms and conditions, or where the terms and conditions of the existing liability are materially changed, such exchange or change causes the derecognition of the initial liability and the recognition of the new liability. Any difference between the book amounts is recognized in profit or loss.

(3) Offset of financial assets and financial liabilities

Financial assets and financial liabilities are offset and presented as the net amount in the statement of financial position when there is a legally enforceable right to offset the recognized assets and liabilities, and there is an intent to settle on a net basis or to realize the assets and settle the liabilities at the same time.

2-9 Measurement of fair value

The Company assesses the financial instruments such as derivatives at fair value as of the end of the reporting period. Disclosures made on the fair value of financial instruments measured at fair value or for which fair value is disclosed are provided under Note 35.

Fair value is the price which would be received in selling an asset or paid to transfer a liability in a normal transaction by and between the market participants on the date of measurement. The fair value measurement assumes that a transaction of selling an asset or transferring a liability takes place in one of the following markets:

- Primary market for assets or liabilities
- The most advantageous market only when there is no primary market for the assets or liabilities

The Company must be able to access the primary (or the most advantageous) market.

The fair value of an asset or liability is measured based on the assumptions which the market participants use when determining the price for the asset or liability under the assumption that the market participants act to the best of their ability and in their economic interest.

When measuring the fair value of a non-financial asset, the ability of the market participant who sells the asset to another market participant who has best used or who will best use the asset to create economic benefits is considered.

The Company uses the valuation techniques which are appropriate for the given circumstances and for which adequate data are available to measure the fair value while maximizing the use of relevant observable input variables and minimizing the use of unobservable input variables.

All assets and liabilities measured or disclosed at fair value in the financial statements are classified into the following fair value hierarchy based on the lowest level of input variables which are significant for fair value measurement.

- Level 1 – The (unadjusted) quoted price in an active market for identical assets or liabilities accessible at the measurement date. The quoted price reflects the market's assumptions regarding changes in the economic environment, such as interest rate increases, inflation, and ESG-related risks.
- Level 2 – Input variables that are observable for the asset or liability, either directly or indirectly, other than the quoted price in Level 1
- Level 3 – Unobservable input variables for assets or liabilities, such as those reflecting significant adjustments due to non-publicly traded equity securities and ESG-related risks, as seen in financial instruments

Regarding the assets and liabilities which are repeatedly measured at fair value in the financial statements, at the end of each reporting period, the Company determines whether there is any movement between the levels of the hierarchy by undertaking a reevaluation of the classification based on the input variable of the lowest level significant for the fair value measurement.

For the fair value's disclosure purposes, the Company determines the classification of assets and liabilities and the levels of the fair value hierarchy based on their nature, characteristics, and their risks.

2-10 Derivatives and hedge accounting

(1) Initial recognition and subsequent measurement

The Company uses the derivatives such as currency futures contracts and commodity forward contracts to hedge the foreign exchange risk, interest rate risk, and the commodity price risk, and such derivatives are initially recognized at fair value on the date of contract execution, and thereafter, are subsequently remeasured at fair value. Derivatives are appropriated as financial assets if their fair value is positive, and as financial liabilities if their fair value is negative, and they are subsequently remeasured. Meanwhile, any changes in the fair value of derivatives are directly reflected in the statement of comprehensive income, and the effective portion of the cash flow hedging is reflected in other comprehensive income.

For hedge accounting, hedging is classified as follows.

- Fair value hedging: hedging against changes in the fair value of recognized assets and liabilities and unrecognized firm contracts
- Cash flow hedge: hedging against changes in the cash flows arising from the foreign currency risk of recognized assets and liabilities, highly probable expected transactions, or unrecognized firm contracts

Upon the commencement of the hedging relationship, the Company formally designates and documents the hedging relationship for which it seeks to apply hedging accounting, the risk management objectives and hedging strategies. The documentation includes the hedging instruments, the hedged items, the nature of the hedged risks, and the method of assessing whether the hedging relationship satisfies the provisions for hedging effectiveness (including the analysis of the cause of hedging ineffectiveness and the method of determining the hedging ratio). The hedging relationship shall satisfy all of the following provisions related to hedging effectiveness.

- There is an 'economic relationship' between the hedged items and the hedging instruments.
- The effect of credit risk does not account for 'most of the changes in value' resulting from the economic relationship between the hedged items and the hedging instruments.
- The hedging ratio for a hedging relationship is the ratio of the number of hedged items which a company actually hedges and the number of hedging instruments the company actually uses to hedge the risk of the number of the hedged items.

The hedging practices satisfying all of the criteria for hedge accounting are accounted for as follows.

- Fair value hedging

Changes in the fair value of the hedging instruments are recognized as profit or loss. The changes in the fair value of the hedged item due to the hedged risk are included in the carrying amount of the hedged item and recognized in profit or loss for the period.

The book amounts' adjustments for fair value hedging of the items measured at amortized cost are amortized using the effective interest method over the surviving period of the hedging. Amortization at the effective interest rate can begin immediately after the adjustment is made, and at the latest, must begin before the adjustment of the hedged items for hedging profits or losses is discontinued.

When the hedged items are derecognized, the unamortized fair value is immediately derecognized and recognized as profit or loss.

If an unrecognized firm contract is designated as a hedged item, the cumulative change in the fair value of the firm contract attributable to the hedged risk is recognized as an asset or liability, and the corresponding profit or loss thereto is recognized as profit or loss.

- Cash flow hedging

The effective portion of profit or loss from hedging instruments is recognized as other comprehensive income within the cash flow hedge reserves, and the ineffective portion is recognized immediately as profit or loss. The cash flow hedge reserves are adjusted to the accumulated profit or loss of the hedging instruments and the accumulated fair value change of the hedged items, whichever is the smaller.

The Company may hedge based on currency forward contracts against exposure to foreign currency risks in future prospective transactions or firm contracts, and the forward contracts against the commodity prices' volatility. The ineffective portion related to the currency forward contracts is recognized as other expenses, and the ineffective portion related to the forward commodity contracts is recognized as other operating income or other operating expenses.

For more details, please refer to Note 23.

The amount accumulated for other comprehensive income (cash flow hedge reserves) is accounted for in line with the characteristics of the hedging transactions. If the hedged transactions subsequently recognize a non-financial item, the cash flow hedge reserves are derecognized and included for the amount of the relevant asset or liability initially recognized. This is not a reclassification adjustment and does not affect other comprehensive income. This is also applied if and when the hedged transaction for a non-financial asset or non-financial liability becomes a firm contract for which fair value hedge accounting is subsequently applied.

With regard to the cash flow hedging, the cash flow hedge reserves are reclassified as profit or loss during the period in which the hedged cash flows affect the profit or loss.

If cash flow hedge accounting is discontinued, the cash flow hedge reserves are retained as other comprehensive income if and when the hedged expected cash flows are still expected to be generated. Otherwise, the cash flow hedge reserves are accounted for immediately as profit or loss based on the reclassification adjustment. If the hedged expected cash flows are generated following the discontinuation, the cash flow hedge reserves ought to be accounted for in line with the nature of the underlying transactions as explained in the above.

2-11 Cash and cash equivalents

The cash and cash equivalents in the statement of financial position consist of savings accounts, small amounts of cash, and short-term deposits with maturities of 3 months or less at the time of acquisition.

2-12 Inventories

The Company assesses the inventories at the acquisition cost or the net realizable value, whichever is the less of the two, and the acquisition cost for each inventory asset includes the purchase cost, conversion cost, and the other costs incurred in bringing the inventory asset to its present location and condition. The unit cost of inventories is determined using the moving average method.

2-13 Tangible assets

Construction in progress is the balance of acquisition cost minus the accumulated impairment losses, and the tangible assets are presented as the balance of acquisition cost minus the accumulated depreciation and accumulated impairment losses. Such costs include the replacement costs satisfying the recognition criteria of assets and the borrowing costs for the long-term construction projects. Where a major part of tangible assets needs to be replaced regularly, the Company recognizes the relevant part as an individual asset and depreciates it over the relevant useful life. Furthermore, if an asset satisfies the recognition criteria such as the comprehensive testing cost, it is included among the book amount for tangible assets, and all repair and maintenance costs are reflected in the profit or loss when incurred. In the cost estimated as required to remove, dismantle, or restore the site for the restoration of tangible assets to their original condition after their economic use has expired, the present value of the relevant expenditures is included in the acquisition cost of the tangible assets.

Meanwhile, the depreciation for tangible assets is appropriated using the straight-line method in line with the economic useful lives of each asset below.

Classification	Useful life
Building	40 years
Structure	40 years
Mechanical equipment	10 - 15 years
Vehicles and transport equipment	5 years
Other tangible assets	5 years

The tangible assets are derecognized upon disposal or when no future economic benefits are expected through their use or disposal, and the resulting difference between the net sales amount and the book amount is reflected in the profit or loss at the time of derecognition.

At the end of each reporting period, the Company reviews the adequacy of the estimated residual value, estimated useful life, and the depreciation method for tangible assets, and where any changes are needed, applies them in a forward-looking manner, and at this time, the impacts of health, safety and environmental laws and regulations are reviewed.

2-14 Borrowing cost

Borrowing costs directly related to the acquisition, construction or production of an asset which requires a significant period to be used for the intended use or ready for sale are capitalized as part of the cost of the relevant asset. Other borrowing costs are appropriated as expenses when incurred. The borrowing costs consist of the interests incurred in connection with the borrowing of funds and the other costs.

2-15 Investment real estate properties

Investment real estate properties are measured at acquisition cost plus the relevant transaction costs, and include the replacement cost that meets the recognition criteria for the assets when incurred. However, costs incurred in day-to-day management activities are recognized as expenses when they are incurred. Following the initial recognition, the investment real estate properties are presented as the balance of the acquisition cost minus the accumulated depreciation and the accumulated impairment losses.

When it is expected that the future economic benefits can no longer be profited from the disposal or use of investment real estate properties, the Company derecognizes them from the consolidated financial statements, and the resulting difference between the net amount of disposal and the book amount is reflected in the profit or loss when derecognized. The consideration (amount) to be included in the profit or loss arising from the derecognition of investment real estate properties is calculated in accordance with the requirements on the calculation of transaction price as provided under Corporate Accounting Standard No. 1115.

In addition, if and only if the purpose of use of the relevant asset is changed, it is transferred from the investment real estate properties to another account or from another account to the investment real estate properties. When it is transferred from the investment real estate properties to tangible assets, the fair value at the point where the purposes of use are changed is applied as the deemed cost. Furthermore, when the tangible assets are replaced with investment real estate properties, the relevant real estate properties are accounted for in the same manner as the tangible assets until the purposes of use are changed.

2-16 Lease

The Company determines at the inception of the contract whether the contract is a lease or contains a lease by considering whether the contract transfers control of the use of an identified asset for a period of time in exchange for consideration.

(1) Accounting treatment as a lessee

The Company applies the single recognition and measurement approach for all leases, with the exception of short-term leases and leases for the underlying assets of small amounts. The Company recognizes a lease liability presenting an obligation to make lease payments and the right-to-use assets presenting the right to use the underlying assets.

1) Right-of-use assets

The Company recognizes the right-of-use assets on the date of commencement of the lease (that is, when the underlying assets are available for use). The right-of-use assets are measured at cost, and a cost model was applied for the subsequent measurements made. To apply the cost model, the accumulated depreciation and accumulated impairment losses are deducted, and the adjustments following the remeasurement of lease liabilities are reflected. The cost of the right-of-use asset includes the amount of the recognized lease liability, initial direct cost, and the lease payments made on or before the date of commencement of the lease minus any lease incentives received. The right-of-use asset is depreciated on a straight-line basis over the shorter of the lease term and the estimated useful life of the asset.

If the ownership to the underlying assets transfers to the Company at the end of the lease term, or if the cost of the right-of-use assets reflects the fact that the Company will exercise the purchase option, the depreciation is calculated using the estimated useful lives of the assets' underlying assets.

Right-of-use assets are also subject to impairment, as explained in Note 2-20, Accounting Policy for Impairment of Non-financial Assets.

2) Lease liabilities

On the date of commencement of the lease, the Company measures the lease liability at the present value of the lease payments to be paid over the lease term. Lease payments consist of fixed lease payments (including the substantive fixed lease payments minus the lease incentives to be received), variable lease payments that depend on an index or rate, and the amount expected to be paid under the residual value guarantee. Lease payments also include the exercise price of the purchase option if it is reasonably certain that the Company will exercise the purchase option and the amount they would pay to terminate the lease if the lease term reflects the Company's exercise of the termination option.

Variable lease payments other than those that depend on an index or rate are recognized as expenses for the period in which the event or condition giving rise to the lease payment occurs (unless it is incurred to produce inventories).

When calculating the present value of lease payments, the Company uses the incremental borrowing rate on the date of commencement of the lease since the implied interest rate of the lease cannot be calculated with ease. After the date of commencement of the lease, the amount of the lease liability increases by reflecting the interest and decreases by reflecting the lease payments made. Furthermore, the book amount of the lease liability is remeasured if there is any change in the lease term, change in the lease payments (for example, changes in future lease payments resulting from changes in the index or rate used to calculate the lease payments) or change in the assessment of options to purchase the underlying assets.

3) Short-term leases and the asset leases of small amount

The Company applies the provisions on recognition exemption for short-term leases of machinery and equipment (that is, such leases operate on a lease term of 12 months or less from the date of commencement and do not include a purchase option). Furthermore, the Company applies the recognition exemption for the leases of assets of small amounts for the leases of office supplies that are considered the assets of small amounts. Lease payments for the short-term leases and leases of assets of small amounts are recognized as expenses on a straight-line basis over the lease term.

(2) Accounting as lessor

The Company classifies the leases which do not substantially transfer all of the risks and rewards of ownership of the underlying asset as the operating leases. The revenue from lease payments is recognized on a straight-line basis over the lease term and is included in the sales in the income statement depending on the nature of the business. The direct cost of establishing an operating lease is added to the book amount of the underlying assets and recognized as an expense over the lease term on the same basis as the lease payment income. Conditional rent payments are recognized as sales when the rent payment is received.

2-17 Classification of liquidity and illiquidity

The Company presents assets and liabilities separately in the statement of financial position as current and non-current.

Assets are classified as current assets where any of the following apply.

- Where the asset is expected to be realized within the normal operating cycle, or intended to be sold or consumed within the normal operating cycle
- Where the asset is primarily held for trading purposes

- Where the asset is expected to be realized within 12 months after the reporting period
- Where, as cash or cash equivalents, the period of restriction on the use of the asset for exchange or debt repayment purposes is not more than 12 months after the reporting period

All other assets are classified as non-current assets.

Liabilities are classified as current liabilities where any of the following apply.

- Where it is expected that payment will be made within the normal operating cycle
 - Where the asset is primarily held for trading purposes
 - Where the payment is due within 12 months after the reporting period
 - Where the unconditional right to defer the settlement of liabilities for more than 12 months after the reporting period is not granted
- Any and all other liabilities are classified as the non-current liabilities.

The deferred income tax assets (liabilities) are classified as the non-current assets (liabilities).

2-18 Cash dividend

The Company recognizes liabilities when the distribution is authorized to pay the dividends out and the company no longer has discretion. Distribution for the shareholders requires approval by the shareholders. The corresponding amount is reflected directly in equity.

2-19 Intangible assets

The Company recognizes individually acquired intangible assets at cost, while intangible assets acquired through business combinations are recognized at fair value at the acquisition date. After initial acquisition, accumulated amortization and impairment losses are directly deducted and presented. Meanwhile, the internally created intangible assets, excluding the development costs, are reflected in profit or loss as expense items when created.

Intangible assets are classified into those with finite useful lives and those with indefinite useful lives.

Intangible assets with finite useful lives are amortized over their useful lives, and the impairment is reviewed if there are indications of impairment. Furthermore, the adequacy of the useful lives and amortization method is reviewed at the end of each reporting period, and if any changes are needed due to changes in the expected period of use or changes in the consumption patterns of economic benefits, they are accounted for through changes in estimates. Amortization of intangible assets is reflected in the profit or loss as an expense item consistent with the function of the relevant intangible asset

Meanwhile, the intangible assets with indefinite useful lives are not amortized, yet are each tested for impairment individually or included for the cash-generating units each year. Furthermore, each year, whether it is appropriate to apply an indefinite useful life for the intangible asset is reviewed, and if not appropriate, it is changed to a finite useful life in a forward-looking manner.

The intangible assets are derecognized upon disposal (that is, the date on which the acquirer gains the control over the relevant assets) or when no future economic benefits are expected from their use or disposal. Upon the derecognition of intangible assets, the Company reflects the profit or loss arising from the differences between the net sale amount and the book amount on the profit or loss.

- Research and development (R&D) expenses

The Company recognizes the research expenses as an expense when incurred. However, with respect to development costs related to individual projects, the Company capitalizes the costs as intangible assets only if: i) technical feasibility to complete the asset for use or sale can be demonstrated, ii) the intention and ability to complete the intangible asset and use or sell it is established, iii) sufficient resources are available for this purpose, iv) it is demonstrated how the intangible asset will generate future economic benefits, and v) the development-related expenditures can be reliably measured during the development stage.

- Patents

Patents are licensed by the government for a period of 10 years, with the right to renew granted at the end of the term. The amortization expenses for the Company's intangible assets are appropriated using the straight-line method in line with the economic useful lives of each asset below.

Classification	Useful life
Industrial property rights	5 - 10 years
Software	5 years
Memberships	Not subject to amortization

2-20 Impairment of non-financial assets

At the end of each reporting period, the Company reviews whether there are any signs of the impairment of assets. Where such signs exist or when an annual impairment test is required for the assets, the Company estimates the assets' recoverable amount. The recoverable amount of the assets is net fair value of the assets or the cash-generating unit or the value in use, whichever is the larger, and it is determined for each individual asset; however, if the cash inflow of the individual asset is not generated almost independently of the cash inflow of the other assets or groups of assets, it is determined by the cash-generating unit to which the individual asset belongs.

. If the asset's book amount exceeds its recoverable amount, the asset is deemed to be impaired and its book amount is reduced to its recoverable amount.

The value in use is determined by discounting the estimated future cash flows of the asset at a pre-tax discount rate reflective of the market's assessment of the time value of money and the risk of the asset. As for the net fair value, a most recent transaction price is considered. If no such transaction is identified, it is determined using an appropriate valuation model. Valuation multiples, market prices of listed stocks, or other fair value indicators are used for such calculations.

The Company calculates the impairment amount based on the specific financial budgets and forecasts prepared for each cash-generating unit for which the individual assets are allocated. The financial budgeting and forecasting generally cover a period of 5 years, while for longer periods, the long-term growth rates are calculated and applied for the period over 5 years.

Impairment loss is reflected in the profit or loss as an expense item consistent with the function of the impaired asset. However, if there is a previously recognized reevaluation surplus as an asset for which the reevaluation model is applied, it is offset against the reevaluation surplus with the previous reevaluation amount as the ceiling.

For assets other than goodwill, at the end of each reporting period, an assessment is made as to whether there are any signs that an impairment loss on any previously recognized assets is no longer present or has decreased. If such signs exist, the recoverable amount is estimated. The impairment loss on an asset, other than the goodwill recognized in the past, increases the book amount to the recoverable amount for the amortized balance of the asset's book amount if no recognition of the impairment loss is made; however, this is limited to cases in which there is any change in the estimates used to determine the recoverable amount of the relevant asset after the point of recognition of the immediately previous impairment loss. However, for the assets for which the reevaluation model is applied, the relevant reversal amount is accounted for an increase in the reevaluation surplus.

For the following assets, each criterion is additionally applied for the asset impairment

As for the other intangible assets with indefinite useful lives, the Company conducts the impairment testing for each individual asset or cash-generating unit on December 31 of each year and whenever any signs of impairment are present.

The Company assesses the areas where climate related issues may have a significant impact, such as the introduction of legislation to regulate the greenhouse gas emissions which may increase the manufacturing costs. Such issues related to climate changes are included as the key assumptions if they have a material impact on the measurement of recoverable amounts.

2-21 Provisioning liabilities

The Company recognizes the provisioning liabilities if and where a present obligation (legal or constructive obligation) exists as a result of any past event, and it is probable that an outflow of resources embodying economic benefits will be released to settle the obligation, and where it is possible to reliably estimate the amount required to fulfill the obligation. Where it is expected that a third party will pay for some or all of the expenses needed to settle the provisioning liabilities, and limited to the cases in which it is almost certain that the Company will receive reimbursement if the Company fulfills the obligations, they are accounted for as separate assets. The expenses recognized in the statements of income in connection with the provisioning liabilities are presented by offsetting the amount recognized in connection with the reimbursement by a third party.

Where the time value effect of money is material, the provisioning liabilities are discounted at the current pre-tax interest rate reflective of the risk specific to the liabilities. Where the provisioning liabilities are assessed at the present value, any increase in the book amount over time is recognized as a financial cost.

1) Onerous contracts

If the Company has executed onerous contracts, the related present obligations are recognized and measured as provisioning liabilities. Before recognizing the provisioning liabilities for the onerous contracts, the impairment loss on the assets used to perform the onerous contracts is recognized first.

An onerous contract is a contract in which the unavoidable costs required to perform the contractual obligations exceed the economic benefits expected to be received therefrom. The unavoidable cost is the lesser of the cost required to perform the contract at the minimum net cost which exists under the contract and the compensation or penalty payable in the event of its non-performance.

2-22 Greenhouse gas emission rights and emission liabilities

The Company receives free emission rights as a result of the greenhouse gas emission trading system. These emission rights are paid for each year, and the same number of emission rights must be used in response to the actual emissions. The Company accounts for the emission rights received using the net debt approach, and accordingly, they are recognized as the provisioning liabilities if and only when the actual amount of carbon emitted exceeds the given emission rights, and the emission costs are recognized as the operating expenses. Where the emission rights are purchased from a third party, they are initially recognized at acquisition cost, and thereafter, remeasured at fair value in line with the emission liabilities, as they are considered as the right of repayment, and the changes in fair value are recognized in the consolidated statements of comprehensive income.

2-23 Treasury stocks

The Company accounts for the treasury stocks as a deduction from the equity. The profit or loss on the acquisition, sale, issuance, or cancellation of treasury stocks is not reflected in the consolidated statements of comprehensive income, and the differences between the book amount and the consideration for disposal is accounted for as other capital surplus.

2-24 Share-based payment transaction

The Company operates a system (the share-settled share-based payment transaction) by which stock options are granted for the executives' and employees' labor and services.

The share-settled, share-based payment costs are measured at fair value of the date of granting using an appropriate valuation model.

The share-based payment costs are recognized as employee benefits over the period in which the service provision related terms and conditions (or performance condition) are satisfied (hereinafter, 'vesting period'), and the corresponding increase in equity is recognized. At the end of each reporting period, the measurement of the cumulative cost of compensation reflects an estimate of whether the vesting period is completed and the final number of equity instruments to be granted. Changes in the accumulated compensation costs at the beginning of the reporting period and at the end of the reporting period are added or subtracted for the statement of income.

The service provision terms and conditions and the non-market conditions are not considered if and when estimating the fair value of share options as of the date of grant, yet are reflected in the estimation of the number of equity instruments which ultimately are vested, and the market conditions are reflected when measuring the fair value as of the date of granting. The other conditions granted for the share-based payments (unless there are relevant service conditions) are considered to be non-vesting conditions. Non-vesting conditions are reflected when the fair value of share-based payment costs is measured, and if there are no service provision terms and conditions (or performance conditions), they are recognized as expenses immediately thereby.

No expense is recognized for share-based payments which ultimately are not vested. However, the stock-settled transactions with market conditions or non-vesting conditions are accounted for as vested regardless of whether the market conditions or non-vesting conditions are satisfied if and where all other performance and service conditions are satisfied.

Changes in the conditions of the share-settled share-based payment are recognized at the minimum cost which would have been recognized if and where the conditions were not changed, except where the equity instruments are not vested as the specified vesting conditions are not met. An additional effect of the change is recognized when it increases the total fair value of the share-based payment agreement or changes the terms to the benefit of employees. When the share-settled compensation is canceled, it is deemed as vested on the date of cancellation and the unrecognized compensation costs are recognized immediately thereby.

The dilutive effect of the issued options is reflected as the diluted shares when calculating the diluted earnings per share.

2-25 Business combination and goodwill

The business combinations are accounted for using the acquisition method. The acquisition cost is measured as the sum of the transfer price measured at fair value on the date of acquisition, and the amount of non-controlling interest for the acquiree. For each business combination, the acquirer measures its non-controlling interest in the acquiree at fair value or pro rata interest of the acquiree's identifiable net assets, and the acquisition related costs are recognized as the expenses as incurred.

The Company determines that a business has been acquired when the group of activities and assets acquired includes input variables and substantive processes which contribute significantly to its ability to create outputs. It is considered substantive if (1) the acquired process (or set of processes) is crucial for the ability to continue to create outputs, and the acquired input variables include an organized labor with skills, knowledge or experience needed to carry out the relevant process (or set of processes), or (2) if the acquired process is deemed to significantly contribute to its ability to continue to produce an output or is considered unique or scarce, or to substitute, if any significant cost or effort is required, or if the ability to continue to produce outputs is delayed.

The Company classifies or designates the acquired assets and assumed liabilities identifiable on the date of acquisition based on the contractual terms, economic conditions, the acquirer's operating and accounting policies, and any other relevant conditions available on the date of acquisition. Included in such classification is the separation of the embedded derivatives from the acquiree's main contract.

If the acquirer provides contingent consideration for the acquiree, the relevant consideration is measured at fair value on the date of acquisition and included in the transfer price. Any subsequent changes in the fair value of contingent consideration classified as assets or liabilities are recognized as profit or loss or other comprehensive income in accordance with Corporate Accounting Standard No. 1109. Also, contingent consideration that is classified as equity is not remeasured and its subsequent settlement is accounted for within equity. If the contingent consideration is not applicable within the scope of Corporate Accounting Standard No. 1109, it is measured in accordance with the appropriate Corporate Accounting Standard.

The goodwill is measured as the sum of the transfer price and the amount of non-controlling interest and the previously held interest which exceeds the net identifiable assets acquired and liabilities assumed.

If the fair value of the acquired net assets should exceed the total amount of transfer price, the consolidated companies review as to whether all assets acquired and liabilities assumed are accurately identified and the procedures used to measure the amount recognized on the date of acquisition. If, after such a re-review, the total amount of transfer price, etc., is still lower than the fair value of the net assets acquired, the relevant difference is recognized as profit or loss.

Following the initial recognition, the goodwill is appropriated at cost minus the accumulated impairment losses. For impairment testing purposes, the goodwill acquired from a business combination is allocated for each cash-generating unit or group of units expected to benefit from the synergies of the business combination on the date of acquisition, which is allocated for the cash-generating unit or group of units irrespective of whether other assets or liabilities of the acquiree are allocated.

In the case of disposing of an operation within the cash-generating unit for which the goodwill has been allocated, the goodwill related to the operation to be disposed of is included in the book amount of the operation when determining the profit or loss on disposal, and is also measured based on the relative value of the portion remaining within the cash-generating unit and the portion being disposed of.

2-26 Assets held for sale and discontinued operations

The Company classifies the non-current assets (or groups of assets for disposal) as held for sale if their book amount will be recovered primarily through the sale transaction or distribution rather than the continued use. The non-current assets and disposal groups classified as held for sale are measured at the lesser of the fair value and book amount, after the deduction of the costs to sell. The costs to sell are the incremental costs (excluding the financial cost and the income tax expenses) directly reverted to the disposal of assets (or disposal group).

The condition for classification as held for sale is deemed to be satisfied if and when the sale is highly probable and the non-current asset (or disposal group) is available for immediate sale in its present condition. The measures required to complete the sale ought to demonstrate the fact that the sale is unlikely to be significantly altered or withdrawn, and the sale must be expected to be completed within 1 year of the asset being classified as held for sale.

Tangible and intangible assets classified as held for sale are not depreciated or amortized.

Assets and liabilities classified as held for sale or for distribution are presented as separate current items in the statement of financial position.

The Company excludes after-tax income from discontinued operations from the results of continuing operations, and presents it as a single amount in the statement of income.

2-27 Subsequent events

If the Company obtains information about conditions that existed at the end of the reporting period after the reporting period but before the date the financial statements are authorized for issuance, it evaluates whether that information affects the amounts recognized in the financial statements. The Company adjusts the amounts recognized in the financial statements to reflect subsequent events that require modification and revises the disclosures related to the situation by incorporating new information. For subsequent events that do not require adjustment, the Company does not change the amounts recognized in the financial statements but discloses the nature of the event and its estimated financial impact. If such estimates cannot be changed, an explanation is provided in the disclosures.

2-28 Earnings per share (EPS)

Basic earnings per share is calculated by dividing the net income attributable to the Company's common shareholders by the weighted average number of common shares outstanding. Diluted earnings per share is calculated by dividing the net income attributable to the Company's common shareholders, after adjusting for preferred stock-related costs, by the sum of the weighted average number of common shares outstanding and the weighted average number of potential common shares that would be issued upon the conversion of dilutive potential common shares.

2-29 Reclassification of accounts in prior period financial statements

The Company has reclassified certain accounts from the prior period financial statements to align with the account classifications in the current period financial statements, in order to facilitate comparison. These reclassifications do not affect the previously reported net income or net assets.

3. Significant Accounting Judgments, Estimations and Assumptions

When preparing the financial statements, the senior management of the consolidated companies is required to make and offer judgments, estimates and assumptions which may affect the reported amounts of income, expenses, assets and liabilities as of the end of the reporting period and the disclosures for the notes to the contingent liabilities. However, the uncertainties of such estimates and assumptions could cause material adjustments to the book amounts of the assets and liabilities that will be affected in the future.

3-1 Important accounting judgments

In the process of applying the Company's accounting policies, the senior management's judgments which have had the most significant impact on the amounts recognized in the consolidated financial statements are as follows.

(1) Calculation of the lease term of contracts with options for extension and termination

The Company calculates the lease term inclusive of the non-cancellable period of the lease and the term of the option if and when it is reasonably certain to exercise the option to extend the lease, or the period over which the option to terminate the lease is reasonably certain not to be exercised.

The Company has the lease agreements which include the extension and termination options. The Company applies judgments when assessing whether it is reasonably certain whether to exercise the option to extend or terminate the lease. That is, they consider any and all relevant facts and circumstances which give rise to an economic incentive to exercise an extension option or not to exercise a termination option. After the date of commencement, the Company reassesses the lease term if any significant events or changes in circumstances under the Company's control affect the ability to exercise an extension or not to exercise an option to terminate.

The Company includes extended periods as part of the lease term for the leases of equipment and machineries with short non-cancellable periods. The Company generally exercises the option to extend the lease since there is a significant negative impact on the production if reclassification assets are not readily available. The extended periods for the long non-cancellable leases of equipment and machinery are not included as part of the lease term since it is not significantly certain that the extension option will be exercised.

. Furthermore, the Company generally leases vehicles for 5 years or less and does not exercise the option to extend the lease, and thus, the option to extend the vehicle lease is not included as part of the lease term.

Moreover, the period covered by the termination option is included as part of the lease term if and only if it is reasonably certain that it will not be exercised.

3-2 Accounting estimates and changes

The other major sources of uncertainties for material assumptions and estimates on the future as of the end of the reporting period that have a significant risk of causing a material adjustment to the book amounts of assets and liabilities in the next fiscal year are as follows. Assumptions and estimates are based on the variables available at the time the financial statements are prepared.

The current circumstances and assumptions about the future may change given the changes in the market or circumstances beyond the control of the Company. When such changes occur, they are reflected in the assumptions.

Meanwhile, the Company takes into account climate-related risks in its estimates and assumptions due to climate change and the establishment of global greenhouse gas reduction commitments in the future. Climate-related risks increase the uncertainty of estimates and assumptions considered in various items of the financial statements. Although they do not significantly impact current measurements, the Company closely monitors climate-related changes and developments, such as new climate laws.

(1) Impairment of non-financial assets

The Company assesses all non-financial assets for any signs of impairment at the end of each reporting period.

Goodwill and intangible assets with indefinite useful lives are tested for impairment each year or when there are signs of impairment, and the other non-financial assets are tested for impairment when there are signs that their book amount will not be recoverable. To calculate the value in use, the senior management must estimate the expected future cash flows from the asset or the cash-generating unit, and select an appropriate discount rate to calculate the present value of the expected future cash flows.

(2) Retirement benefit plan

The present value of the defined benefit liability is determined based on the actuarial valuation method. To apply the actuarial valuation method, it is necessary to establish various assumptions, and the establishment of such assumptions includes the discount rate, rate of future wage increase, and the mortality rate. Given the complexity of the valuation method and the underlying assumptions and the long-term nature of the valuation method, the defined benefit liability fluctuates sensitively according to these assumptions. All assumptions are reviewed at the end of each reporting period.

(3) Provisions for expected loss on trade and other receivables and contract assets

The Company uses the provision setting table to calculate the expected credit loss (ECL) for trade and other receivables and contract assets. The provision setting rate is based on the number of delinquent days in a bundle for different customer segments with similar loss patterns (i.e., geographic location, product type, customer type and credit rating, collateral or transactional credit insurance).

(4) Deferred income tax assets

Where it is highly likely that future taxable income for which the tax loss can be used will occur, the deferred income tax assets are recognized for the unused tax loss within the scope. The Company's senior management performs major judgments to determine the amount of deferred income tax assets that can be recognized based on the future tax strategies and the timing and extent of tax income. The relevant details are provided under Note 31.

(5) Fair value of financial instruments

The fair value of financial instruments without an active market was calculated by applying valuation techniques including the discounted cash flow method. When the observable market information is not available for the input factors used for such valuation techniques, the determination of fair value requires a considerable estimation. Such judgments include the consideration of input variables such as liquidity risk, credit risk and volatility. Changes in such factors may affect the fair value of financial instruments.

(6) Share-based compensation

The Company measures the compensation cost of the share-settled share-based payment transactions based on the fair value on the date of grant of equity instruments, and the fair value is estimated by applying an appropriate valuation model in consideration of the conditions for granting equity instruments. Additionally, the Company must determine the most appropriate pricing factors for the valuation model, including the expected life of the stock options, volatility, dividend rates,

and other relevant elements, and establish assumptions for these factors.

(7) Calculation of the incremental borrowing rate of a lease

The Company uses the incremental borrowing rate to measure the lease liability since the implicit interest rate of the lease cannot be easily determined. The incremental borrowing rate is the interest rate which the Company would be required to pay if the Company borrows the funds needed to acquire an asset of similar value to the right-of-use asset with similar collateral over a similar period in a similar economic environment.

Therefore, the incremental borrowing rate reflects what the Company is required to 'pay' when no observable rates are available or when adjustments are needed to reflect lease conditions. The Company measures the incremental borrowing rate using observable input variables whenever possible and must develop specific estimates for each company.

(8) Inventory valuation allowance

The Company must estimate the conversion cost and other costs incurred in bringing the inventory to its present location and condition for the net realizable value assessment of the inventories. The balance of the inventory valuation provision may change depending on the estimation of operational cost, cost of goods sold, etc.

(9) Provisioning liabilities

If legal obligations and constructive obligations exist as a result of past events as of the end of the reporting period, the Company must estimate the likelihood and amount of resource outflow required to fulfill these obligations. For this estimation, all available evidence is taken into consideration and significant estimation and judgment are required.

(10) Useful life and residual value of tangible assets

The Company reviews the estimated residual value and expected useful life of tangible assets at least annually. In particular, when evaluating the expected useful life and estimated residual value, the impact of health, safety, and environmental regulations is considered. Additionally, climate-related factors, including physical and transition risks, are taken into consideration.

4. Standards Announced or Effective upon Revision or Enactment

4-1 Application of issued or amended standards

The Company applied the standards and revisions for the first time for the first fiscal year beginning on or after January 1, 2024. The Company has not applied early the standards, interpretations or the revisions which have been announced yet have not been enforced.

(1) Amendment to Corporate Accounting Standard No. 1116 'Leases' - Lease liabilities arising from sales-type leases

The amendments to Corporate Accounting Standard No. 1116 'Leases' clarify the requirement that the seller-lessee should not recognize any gain or loss on the right-of-use asset that continues to be held by the seller-lessee when measuring lease liabilities arising from a sales-type lease transaction.

The application of these amendments does not have a significant impact on the Company's financial statements.

(2) Revision to Corporate Accounting Standard No. 1001 'Presentation of Financial Statements' - Classification of Liabilities as Current/Non-current Liabilities

The amendments to Corporate Accounting Standard No. 1001 clarify the following requirements regarding the classification of liabilities as current and non-current:

- The meaning of the right to defer settlement
- The right to defer settlement must exist as of the reporting date.

- The classification of liquidity is not affected by the possibility of exercising the right to defer settlement.
- The conditions under which a company can settle a liability by transferring its own equity instruments do not affect the classification of liquidity if the option is classified as an equity instrument and the option is recognized separately from the liability as a component of a compound financial instrument.

Additionally, if a company classifies a liability arising from a borrowing agreement as a non-current liability, and the company's right to defer settlement depends on whether the covenant is complied with within 12 months after the reporting period, this should be disclosed.

The application of these amendments does not have a significant impact on the Company's financial statements.

(3) Revision to Corporate Accounting Standard No. 1007 'Statement of Cash Flows' and Corporate Accounting Standard No. 1107 'Financial Instruments: Amendment to 'Financial Instruments: Disclosures' - Supplier Financing Agreements, Corporate Accounting Standard No. 1007 'Statement of Cash Flows,' and No. 1107 'Financial Instruments: Disclosures' clarifies the characteristics of supplier financing agreements and requires additional disclosures related to such agreements. The disclosure requirements of this amendment are intended to help financial statement users understand the impact of supplier financing agreements on the company's liabilities, cash flows, and exposure to liquidity risk. In accordance with this amendment, the Company has provided additional disclosures regarding supplier financing agreements, and please refer to Note 16.

4-2 Accounting standards announced but not yet enforced

The details of the enacted or revised standards and interpretations which have been enacted or announced as of the date of approval for issuance of the financial statements of the Company, yet which have not been applied early since the date of enforcement has not yet arrived, are as follows.

(1) Amendment to Corporate Accounting Standard No. 1021 'Effects of Changes in Foreign Exchange Rates' - Lack of Exchangeability

Corporate Accounting Standard No. 1021 'Effects of Changes in Foreign Exchange Rates' was amended to clarify how a company evaluates exchangeability with other currencies and how the spot exchange rate is determined when there is a lack of exchangeability. Additionally, this amendment requires the disclosure of information that enables financial statement users to understand how a currency with a lack of exchangeability affects, or is expected to affect, the company's financial performance, financial position, and cash flows.

These amendments apply from the fiscal year beginning on or after January 1, 2025. Early adoption is permitted, and this fact must be disclosed. When applying this amendment, the Company will not restate comparative information.

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These amendments are not expected to have a significant impact on the financial statements.

(2) Corporate Accounting Standard No. 1109 'Financial Instruments' and No. 1107 'Financial Instruments: Amendment to 'Financial Instruments: Disclosures' - Classification and Measurement of Financial Instruments

Corporate Accounting Standard No. 1109 'Financial Instruments' and No. 1107 'Financial Instruments: Amendment to 'Financial Instruments: Disclosures' - The amendments to the classification and measurement of financial instruments include the following:

- The amendment clarifies the accounting policy choice for removing financial liabilities that are settled on the settlement date and those settled using electronic payment systems, provided certain conditions are met before the settlement date.
- Additional guidance on how to assess the contractual cash flows of financial assets with ESG and similar characteristics
- Clarification of what constitutes a non-recourse feature and the characteristics of financial instruments linked to contracts.
- Introduction of disclosure requirements for financial instruments with contingent features and additional disclosure requirements for equity instruments measured at fair value through other comprehensive income.

These amendments apply from the fiscal year beginning on or after January 1, 2026. Early application is permitted including for the amendments related to the classification of financial assets and related disclosure requirements. The Company does not plan to early adopt the amendments at this time.

(3) K-IFRS Annual Improvements Volume 11

The K-IFRS Annual Improvements Volume 11 was issued to enhance the consistency of requirements across standards, clarify ambiguous areas, and improve understandability.

- Corporate Accounting Standard No. 1101 'First-time Adoption of Korean International Financial Reporting Standards' – A Subsidiary that Application of hedge accounting upon first-time adoption of K-IFRS
- There are no similar limited revisions to Corporate Accounting Standard No. 1107 'Financial Instruments: Disclosures': Disposal gains and losses, practical application guidelines
- There are no similar limited revisions to Corporate Accounting Standard No. 1109 'Financial Instruments: The accounting treatment for the removal of lease liabilities and the definition of transaction price
- Corporate Accounting Standard No. 1110 'Consolidated Financial Statements': Determination of De Facto Agent
- Corporate Accounting Standard No. 1007 'Statement of Cash Flows': Cost method

These amendments apply from the fiscal year beginning on or after January 1, 2026. Early adoption is permitted, and this fact must be disclosed. These amendments are not expected to have a significant impact on the financial statements.

5. Financial Instruments

Disclosure by category of financial assets

Current period

(Unit: KRW one thousand)

		Financial assets measured at fair value through profit or loss	Financial assets recognized through other comprehensive income	Financial assets measured at amortized cost, Category	Financial assets, Total by category
Total current financial assets		0	0	229,929,663	229,929,663
Total current financial assets	Trade and other receivables	0	0	229,892,301	229,892,301
	Current derivative financial assets	0	0	0	0
	Other current financial assets	0	0	37,362	37,362
Total non-current financial assets		69,762,907	2,500,032	1,106,152	73,369,091
Total non-current financial assets	Long-term financial products	0	0	27,500	27,500
	Non-current derivative assets	8,784,996	0	0	8,784,996
	Long-term investment assets	60,977,911	2,500,032	0	63,477,943
	Other non-current financial assets	0	0	1,078,652	1,078,652
Total financial assets		69,762,907	2,500,032	231,035,815	303,298,754

Previous period

(Unit: KRW one thousand)

		Financial assets measured at fair value through profit or loss	Financial assets recognized through other comprehensive income	Financial assets measured at amortized cost, Category	Financial assets, Total by category
Total current financial assets		215,849	0	178,494,950	178,710,799
Total current financial assets	Trade and other receivables	0	0	178,457,588	178,457,588

	Current derivative financial assets	215,849	0	0	215,849
	Other current financial assets	0	0	37,362	37,362
Total non-current financial assets		62,592,749	2,500,033	1,031,412	66,124,194
Total non-current financial assets	Long-term financial products	0	0	27,500	27,500
	Non-current derivative assets	5,055,776	0	0	5,055,776
	Long-term investment assets	57,536,973	2,500,033	0	60,037,006
	Other non-current financial assets	0	0	1,003,912	1,003,912
Total financial assets		62,808,598	2,500,033	179,526,362	244,834,993

(Note 1) Other financial assets: It refers to short-term and long-term deposits.

Disclosure by category of financial liabilities

Current period

(Unit: KRW one thousand)

		Financial liabilities at fair value through profit or loss	Financial assets measured at amortized cost, Category	Financial liabilities, Total by category
Total current financial liabilities		3,960,792	536,950,567	540,911,359
Total current financial liabilities	Trade payables and other current liabilities	0	178,799,913	178,799,913
	Current borrowings (including bonds)	0	255,350,258	255,350,258
	Current portion of non-current borrowings (including bonds)	0	101,636,680	101,636,680
	Current derivative liabilities	3,960,792	0	3,960,792
	Current lease liabilities	0	1,053,865	1,053,865
	Other current financial liabilities	0	109,851	109,851
Total non-current financial liabilities		0	228,677,202	228,677,202
Total non-current financial liabilities	Non-current portion of bonds payable	0	219,404,969	219,404,969
	Non-current portion of borrowings (including bonds payable)	0	8,333,310	8,333,310
	Non-current lease liabilities	0	938,923	938,923
Total financial liabilities		3,960,792	765,627,769	769,588,561

Previous period

(Unit: KRW one thousand)

		Financial liabilities at fair value through profit or loss	Financial assets measured at amortized cost, Category	Financial liabilities, Total by category
Total current financial liabilities		81,934	624,102,932	624,184,866
Total current financial liabilities	Trade and other payables	0	188,916,425	188,916,425

Total	Current liabilities			
	Current borrowings (including bonds)	0	238,989,049	238,989,049
	Current portion of non-current borrowings (including bonds)	0	192,405,128	192,405,128
	Current derivative liabilities	81,934	0	81,934
	Current lease liabilities	0	844,576	844,576
	Other current financial liabilities	0	2,947,754	2,947,754
Total non-current financial liabilities		0	173,189,625	173,189,625
Total non-current financial liabilities	Non-current portion of bonds payable	0	164,557,091	164,557,091
	Non-current portion of borrowings (including bonds payable)	0	7,650,000	7,650,000
	Non-current lease liabilities	0	982,534	982,534
Total financial liabilities		81,934	797,292,557	797,374,491

(Note 1) Lease liabilities: Lease liabilities correspond to the liabilities recognized in accordance with Corporate Accounting Standard No. 1116.

(Note 2) They are the deposits received and unpaid dividends.

Profit and loss by the category of financial instruments

Current period

(Unit: KRW one thousand)

	Assets and liabilities			Total assets and liabilities
	Financial assets, Category		Financial liabilities, Category	
	Financial assets at fair value through profit or loss	Financial assets measured at amortized cost, Category	Financial assets measured at amortized cost, Category	
Interest income (expense)	0	10,081,735	(32,276,441)	(22,194,706)
Fair value gains and losses of financial assets measured at fair value through profit or loss	1,311,731	0	0	1,311,731
Disposal gains and losses of financial assets measured at fair value through profit or loss				
Dividend income	1,790,000	0	0	1,790,000
Profit or loss on foreign currency translation	0	3,212,348	(1,307,118)	1,905,230
Gains on foreign currency transactions	0	12,242,962	(5,902,935)	6,340,027
Profit or loss on the valuation of derivatives	(231,572)	0	0	(231,572)
Profit or loss on the transaction of derivatives	(2,241,702)	0	0	(2,241,702)

Bad debt expenses (reversal of allowance for bad debts)	0	(55,236)	0	(55,236)
Other bad debt expenses	0	(218,904)	0	(218,904)
Profit and loss by the category of financial instruments	628,457	25,262,905	(39,486,494)	(13,595,132)

Previous period

(Unit: KRW one thousand)

	Assets and liabilities			Total assets and liabilities
	Financial assets, Category		Financial liabilities, Category	
	Financial assets at fair value through profit or loss	Financial assets measured at amortized cost, Category	Financial assets measured at amortized cost, Category	
Interest income (expense)	0	5,520,538	(27,275,283)	(21,754,745)
Fair value gains and losses of financial assets measured at fair value through profit or loss	1,201,827	0	0	1,201,827
Disposal gains and losses of financial assets measured at fair value through profit or loss	2,052,645	0	0	2,052,645
Dividend income	2,190,000	0	0	2,190,000
Profit or loss on foreign currency translation	0	(888,898)	605,928	(282,970)
Gains on foreign currency transactions	0	5,069,536	(2,507,967)	2,561,569
Profit or loss on the valuation of derivatives	3,952,078	0	0	3,952,078
Profit or loss on the transaction of derivatives	(1,322,343)	0	0	(1,322,343)
Bad debt expenses (reversal of allowance for bad debts)	0	95,629	0	95,629
Other bad debt expenses	0	408,790	0	408,790
Profit and loss by the category of financial instruments	8,074,207	10,205,595	(29,177,322)	(10,897,520)

5. Financial Instruments - Cash and Cash Equivalents

Disclosure of cash and cash equivalents

Current period

(Unit: KRW one thousand)

	Disclosure amount
Cash on hand	8,616
Deposit balance	177,051,649
Total cash	177,060,265

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Cash on hand	6,770

Deposit balance	245,204,772
Total cash	245,211,542

5. Financial Instruments - Restricted Deposits

Restricted financial assets

Current period

(Unit: KRW one thousand)

	Long-term financial assets
Restricted financial assets	27,500
Description of restricted financial assets	Security deposit for opening current deposit account

Previous period

(Unit: KRW one thousand)

	Long-term financial assets
Restricted financial assets	27,500
Description of restricted financial assets	Security deposit for opening current deposit account

6. Trade and Other Receivables

Disclosure of trade receivables and other receivables

Current period

(Unit: KRW one thousand)

		Total book value	Accumulated impairment losses	Total book value
Trade and other receivables		233,254,309	(3,362,008)	229,892,301
Trade receivables and other current receivables	Current trade receivables	221,024,671	(61,137)	220,963,534
	Short-term receivables	9,426,114	(860,871)	8,565,243
	Short-term loans	2,440,000	(2,440,000)	0
	Short-term unearned revenue	363,524	0	363,524

Previous period

(Unit: KRW one thousand)

		Total book value	Accumulated impairment losses	Total book value
Trade and other receivables		185,449,552	(6,991,964)	178,457,588
Trade receivables and other current receivables	Current trade receivables	172,140,591	(3,813,874)	168,326,717
	Short-term receivables	9,265,955	(138,090)	9,127,865
	Short-term loans	3,040,000	(3,040,000)	0
	Short-term unearned revenue	1,003,006	0	1,003,006

Disclosure of changes in the allowance for trade receivables and other receivables, and the total carrying amount

Current period

(Unit: KRW one thousand)

	Financial instruments
	Trade receivables
	Book amount
	Accumulated impairment losses
Beginning financial assets	(6,991,964)

Expected credit loss (ECL) before (reversal), financial assets	(274,140)
Decrease through disposal, financial assets	3,904,096
Ending financial assets	(3,362,008)

Previous period

(Unit: KRW one thousand)

	Financial instruments
	Trade receivables
	Book amount
	Accumulated impairment losses
Beginning financial assets	(7,501,299)
Expected credit loss (ECL) before (reversal), financial assets	504,419
Decrease through disposal, financial assets	4,916
Ending financial assets	(6,991,964)

(Note 1) Ending financial assets: At the end of the current period, some trade receivables are secured by collateral, and trade receivables credit insurance has been obtained.

Disclosure of overdue or impaired trade receivables and other receivables

Current period

(Unit: KRW one thousand)

	Financial assets, Classification				
	Trade and Other Receivables				
	Past due status				Total past due status
	Present	Within 3 months	Over 3 months but within 6 months	Over 6 months	
Financial assets	223,836,265	8,187,959	1,161,499	68,586	233,254,309

Previous period

(Unit: KRW one thousand)

	Financial assets, Classification				
	Trade and Other Receivables				
	Past due status				Total past due status
	Present	Within 3 months	Over 3 months but within 6 months	Over 6 months	
Financial assets	175,356,799	3,803,091	2,473,730	3,815,932	185,449,552

6. Trade and Other Receivables - Transfer of Financial Assets

If the transferred or discounted trade receivables do not satisfy the requirements for the derecognition of financial instruments, the Company continues to recognize them as the trade and other receivables, whose details are as follows.

Transferred financial assets that are not fully derecognized

Current period

(Unit: KRW one thousand)

	Trade receivables
Assets continuously recognized by the company	15,350,258
Related liabilities continuously recognized by the company	15,350,258
Description of the nature of risks and rewards exposed due to ownership	Provision for the right of recourse

Previous period

(Unit: KRW one thousand)

	Trade receivables
Assets continuously recognized by the company	68,989,049
Related liabilities continuously recognized by the company	68,989,049
Description of the nature of risks and rewards exposed due to ownership	Provision for the right of recourse

(Note 1) Related liabilities continuously recognized by the company: The Company recognized the short-term borrowings as much as the nominal amount of the transferred or discounted trade receivables (refer to Note 17-2).

7. Inventories

Details of inventory

Current period

(Unit: KRW one thousand)

	Total book value	Inventory valuation allowance	Total book value
Current goods	43,143,247	(573,904)	42,569,343
Current products	128,245,132	(5,288,235)	122,956,897
Current processed products	35,156,707	(1,101,271)	34,055,436
Current semi-finished goods	15,215,643	(2,796)	15,212,847
Current work-in-process	5,949,231	0	5,949,231
Current raw materials	45,395,409	(22,798)	45,372,611
Current supplies	1,856,180	(23,212)	1,832,968
Goods to arrive	7,062,693	0	7,062,693
Other inventories	540,294	0	540,294
Total current inventories	282,564,536	(7,012,216)	275,552,320

Previous period

(Unit: KRW one thousand)

	Total book value	Inventory valuation allowance	Total book value
Current goods	28,523,639	(394,219)	28,129,420
Current products	109,443,589	(5,642,673)	103,800,916
Current processed products	33,975,240	(483,765)	33,491,475
Current semi-finished goods	10,203,529	(2,796)	10,200,733
Current work-in-process	4,177,243	0	4,177,243
Current raw materials	44,262,214	(17,888)	44,244,326
Current supplies	2,239,648	(4,417)	2,235,231
Goods to arrive	5,242,545	0	5,242,545
Other inventories	566,350	0	566,350
Total current inventories	238,633,997	(6,545,758)	232,088,239

Disclosure of inventory impairment losses

Current period

(Unit: KRW one thousand)

	Cost of sales
Loss on the valuation of inventories	466,458

Previous period

(Unit: KRW one thousand)

	Cost of sales
Loss on the valuation of inventories	921,905

8. Other Assets

Disclosure of other assets

Current period

(Unit: KRW one thousand)

		Disclosure amount
Other current assets		4,605,336
Other current assets	Current advances paid	557,554
	Current prepaid expenses	3,427,991
	Short-term deposits, net amount	37,362
	Current income tax assets	355,230
	Short-term other assets	227,199
Other non-current assets		2,307,456
Other non-current assets	Long-term deposits, net amount	1,078,652
	Long-term other assets	1,228,804

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Other current assets		5,705,093
Other current assets	Current advances paid	1,525,517
	Current prepaid expenses	3,618,127
	Short-term deposits, net amount	37,362
	Current income tax assets	296,889
	Short-term other assets	227,198
Other non-current assets		1,991,165
Other non-current assets	Long-term deposits, net amount	1,003,912
	Long-term other assets	987,253

9. Short-Term and Long-Term Financial Assets

Disclosure of financial assets

Current period

(Unit: KRW one thousand)

		Disclosure amount

	Long-term investment assets			
	Financial assets, Category			
	Financial assets measured at fair value through profit or loss		Financial assets measured at fair value through other comprehensive income	
	Total measurement			
	Acquisition cost	Fair value	Acquisition cost	Fair value
Financial assets		57,536,972		2,500,032

Details of long-term investment assets - Total

Current period

(Unit: KRW one thousand)

	Assets	
	Long-term investment assets	
	Total measurement	
	Acquisition cost	Fair value
Financial assets	62,152,654	63,477,943

Previous period

(Unit: KRW one thousand)

	Assets	
	Long-term investment assets	
	Total measurement	
	Acquisition cost	Fair value
Financial assets		60,037,004

Profit or loss - Disclosure of financial assets measured at fair value

Current period

(Unit: KRW one thousand)

	Assets					
	Long-term investment assets					
	Financial assets, Category					
	Financial assets measured at fair value through profit or loss					
	Financial assets, Classification					
	Unlisted shares		Debt securities			
	Eastman Fiber Korea Ltd.	Yongyeon Industrial District 4 Industrial Water Management Association	Standigm Inc.	Korea Investment Bio Global Fund	Sante Health Ventures IV LP	Tiumbio Co., Ltd.
Beginning financial assets	25,566,223	419,199	3,000,007	1,953,614	6,597,934	19,999,995
Increase due to issuance or purchase, Financial assets	0	0	0	0	2,678,208	0
Decrease due to transfer Financial assets	0	0	0	(549,000)	0	0
Increase (decrease) due to fair value changes Financial assets	3,580,937	0	0	197,856	3,263,972	(5,731,034)
Ending financial assets	29,147,160	419,199	3,000,007	1,602,470	12,540,114	14,268,961

Previous period

(Unit: KRW one thousand)

	Assets					
	Long-term investment assets					
	Financial assets, Category					
	Financial assets measured at fair value through profit or loss					
	Financial assets, Classification					
	Unlisted shares		Debt securities			
	Eastman Fiber Korea Ltd.	Yongyeon Industrial District 4 Industrial Water Management Association	Standigm Inc.	Korea Investment Bio Global Fund	Sante HealthVentures IV LP	Tiumbio Co., Ltd.
Beginning financial assets	25,128,024	419,199	3,000,007	2,712,054	3,368,874	0
Increase due to issuance or purchase, Financial assets	0	0	0	0	2,079,993	19,999,995
Decrease due to transfer Financial assets	0	0	0	(373,000)	0	0
Increase (decrease) due to fair value changes Financial assets	438,199	0	0	(385,439)	1,149,068	0
Ending financial assets	25,566,223	419,199	3,000,007	1,953,614	6,597,934	19,999,995

Other comprehensive income-Disclosure of the fair value of equity instrument investments designated as fair value

Current period

(Unit: KRW one thousand)

	Assets	
	Long-term investment assets	
	Financial assets, Category	
	Financial assets measured at fair value through other comprehensive income	
	Unlisted shares	
	J2H Biotech Co., Ltd.	Oncobix Co., Ltd.
Beginning financial assets	1,500,052	999,980
Increase due to issuance or purchase, Financial assets	0	0
Decrease due to transfer, Financial assets	0	0
Increase (decrease) due to fair value changes Financial assets	0	0
Ending financial assets	1,500,052	999,980

Previous period

(Unit: KRW one thousand)

	Assets	
	Long-term investment assets	
	Financial assets, Category	
	Financial assets measured at fair value through other comprehensive income	
	Unlisted shares	
	J2H Biotech Co., Ltd.	Oncobix Co., Ltd.
Beginning financial assets	1,500,052	999,980

Increase due to issuance or purchase, Financial assets	0	0
Decrease due to transfer, Financial assets	0	0
Increase (decrease) due to fair value changes Financial assets	0	0
Ending financial assets	1,500,052	999,980

Disclosure of changes in long-term investment assets

Current period

(Unit: KRW one thousand)

	Assets				
	Long-term investment assets				
	Financial assets, Category				Financial assets, Total by category
	Financial assets measured at fair value through profit or loss		Financial assets measured at fair value through Financial assets		
	Financial assets, Classification				
	Unlisted shares	Debt securities	Unlisted shares	Debt securities	
Beginning financial assets	25,985,422	31,551,550	2,500,032		60,037,004
Increase due to issuance or purchase, Financial assets	0	2,678,208	0		2,678,208
Decrease due to transfer Financial assets	0	(549,000)	0		(549,000)
Increase (decrease) due to fair value changes Financial assets	3,580,937	(2,269,206)	0		1,311,731
Ending financial assets	29,566,359	31,411,552	2,500,032		63,477,943

Previous period

(Unit: KRW one thousand)

	Assets				
	Long-term investment assets				
	Financial assets, Category				Financial assets, Total by category
	Financial assets measured at fair value through profit or loss		Financial assets measured at fair value through Financial assets		
	Financial assets, Classification				
	Unlisted shares	Debt securities	Unlisted shares	Debt securities	
Beginning financial assets	25,547,223	9,080,935	2,500,032		37,128,190
Increase due to issuance or purchase, Financial assets	0	22,079,988	0		22,079,988
Decrease due to transfer Financial assets	0	(373,000)	0		(373,000)
Increase (decrease) due to fair value changes Financial assets	438,199	763,629	0		1,201,828
Ending financial assets	25,985,422	31,551,550	2,500,032		60,037,004

(Note 1) Eastman Fiber Korea Ltd.: The Company holds a put option for the interest in the preferred stocks of Eastman Fiber Korea Ltd. and have granted a call option of the same amount for Eastman Chemical Korea B.V., the largest shareholder, and considering this option, the assessment of the investment assets was reflected at fair value.

(Note 2) Standigm Inc.: These are redeemable convertible preferred stocks (RCPS) with the right to convert to common stocks for 10 years from the date of completion of the transaction, and the right to require redemption from the Company 3 years after the date of completion of the transaction.

(Note 3) Korea Investment Bio Global Fund: The Company has disposed of some of the debt securities in the Korea Investment Bio Global Fund.

(Note 4) Sante Health Ventures IV, LP: The Company has an additional investment in Sante Health Ventures IV, LP.

Disclosure of acquisition of long-term investment assets

	Assets
	Long-term investment assets
	Financial assets, Category
	Financial assets measured at fair value through profit or loss
	Debt securities
	Tiumbio Co., Ltd.
Explanation of the reasons for concluding that significant influence exists, despite owning less than 20% of the investee's equity.	The Company determined that it holds significant influence over Tioum Bio Co., Ltd. based on its right to appoint one director and its approval rights over key management decisions. However, it was concluded that the Company does not have practical access to the benefits associated with ownership interest in the associate. Therefore, the investment is measured at fair value through profit or loss in accordance with Corporate Accounting Standard No. 1109.
Description of in-kind contribution of shares	
Number of shares for in-kind capital contribution (Unit: shares)	
Acquired convertible preferred stocks (unit: shares)	

Previous period

	Assets
	Long-term investment assets
	Financial assets, Category
	Financial assets measured at fair value through profit or loss
	Debt securities
	Tiumbio Co., Ltd.
Explanation of the reasons for concluding that significant influence exists, despite owning less than 20% of the investee's equity.	The Company has determined that it holds significant influence over Tiumbio Co., Ltd. based on the right to nominate one director and the consent rights over key business decisions.
Description of in-kind contribution of shares	Shares of the subsidiary SK bioscience Co., Ltd.
Number of shares for in-kind capital contribution (Unit: shares)	290,276
Acquired convertible preferred stocks (unit: shares)	2,320,185

11. Investments in Subsidiaries, Associates and Joint Ventures

11-1 The details of the subsidiaries' investments as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Company Name	Location	End of the current period		End of the previous period	
		Equity interest (%)	Book amount	Equity interest (%)	Book amount
Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.	China	100.00	66,094,000	100.00	66,094,000
SK chemicals (Suzhou) Co., Ltd. (Note 1)	China	100.00	-	100.00	-
SK Environmental Materials (Yantai) Co., Ltd.	China	100.00	33,847,804	100.00	33,847,804
SK Environmental Protection Materials (Yantai) Co., Ltd.	China	100.00	101,938	100.00	101,938
SK bioscience Co., Ltd.	Republic of Korea	66.45	168,034,950	67.76	168,034,950
SK Chemicals Daejeong Co., Ltd. (Notes 2)	Republic of Korea	50.00	6,140,521	50.00	6,140,521
SK Multi-Utility	Republic of Korea	100.00	160,011,654	100.00	160,011,654
SK Chemicals America	United States of America	100.00	1,448,304	100.00	1,448,304
SK Chemicals GmbH	Germany	100.00	432,843	100.00	432,843
SK Chemicals Malaysia	Malaysia	100.00	372,924	100.00	372,924
Total			436,484,938		436,484,938

(Note 1) A share purchase agreement was signed to sell 100% of the shares in SK Chemicals (Suzhou) Co., Ltd. to Shmeng Foods Co., Ltd. prior to the current period. The assets were classified as assets held for sale before the previous period, and the sale was completed during the current period.

(Note 2) The Company has a put option for all of its interest in SK Chemicals Daejeong Co., Ltd.

11-2 There were no changes in investments in subsidiaries during the current period. Investment changes in subsidiaries during the previous period are as follows.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Increase (Note 1)	Decrease (Note 2)	End of period
Subsidiaries' investment shares	371,327,872	66,094,000	(936,934)	436,484,938

(Note 1) During the current period, a paid-in capital increase was executed for Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.

(Note 2) During the current period, the Company made an in-kind contribution of 290,276 shares of SK Bioscience Co., Ltd., which has been held to TiumBio Co., Ltd.

11-3 The details of the affiliates and joint ventures investments as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	Location	End of the current period		End of the previous period	
		Equity interest (%)	Book amount	Equity interest (%)	Book amount
Entis Co., Ltd.	Republic of Korea	50.00	4,891,868	50.00	4,891,868
JSI Co., Ltd.	Republic of Korea	40.00	-	40.00	-
HDC Polyall Co., Ltd. (Notes 1, 2, 3)	Republic of Korea	20.00	-	20.00	3,025,078
Total			4,891,868		7,916,946

(Note 1) The Company is determined to have influence over HDC Polyall Co., Ltd. based on the fact that the Company can appoint one of the five directors.

(Note 2) The Company has put options for all of its interest in HDC Polyall.

(Note 3) An impairment loss of KRW 3,025,078,000 (previous year: KRW 4,674,672,000) was recognized, exceeding the recoverable amount estimated based on the value in use for the current and previous periods.

Additionally, during the current period, the Company determined that there were indications of asset impairment for its investment in HDC Polyall Co., Ltd. Consequently, an impairment test was performed, and the recoverable amount was assessed based on value in use. The future cash flows used to estimate the value in use were determined based on the Company's past operating performance and future business plans. The key assumptions used in the value in use calculation are as follows.

Discount rate	Permanent growth rate
11.87%	0%

Meanwhile, as of the reporting period end, there is no remaining recoverable amount for HDC Polyall Co., Ltd. Therefore, no changes in the estimated value in use have occurred due to variations in key assumptions such as the discount rate and perpetual growth rate.

12. Tangible Assets

Disclosure of detailed information on tangible assets

Current period

(Unit: KRW one thousand)

	Land	Building	Structure	Mechanical equipment	Vehicles and transport equipment	Other tangible assets	Assets under construction in progress	Machineries in transit	Total tangible assets
Beginning tangible assets	153,043,349	182,321,041	88,236,124	165,936,182	204,758	19,436,820	77,241,249	6,889,231	693,308,754
Increase other than through business combination acquisition, Tangible assets	0	13,200,394	11,225,738	26,147,775	0	2,124,988	10,795,747	159,519	63,654,161
Disposal, Tangible assets	(5,765)	(448,678)	(41,330)	(29,837)	0	(2,618)	0	0	(528,228)
Depreciation expense, investments in equity instruments	0	(6,954,762)	(2,834,939)	(33,615,806)	(87,130)	(6,196,855)	0	0	(49,689,492)
Impairment loss recognized in profit or loss, investments in equity instruments	0	(1,465,806)	(1,285,082)	(1,122,804)	0	0	0	0	(3,873,692)
Increase (decrease) due to exchanges and other changes Tangible assets	0	23,909,140	12,237,882	26,143,364	0	684,211	(63,921,332)	(5,404,153)	(6,350,888)
Ending tangible assets	153,037,584	210,561,329	107,538,393	183,458,874	117,628	16,046,546	24,115,664	1,644,597	696,520,615

Previous period

(Unit: KRW one thousand)

	Land	Building	Structure	Mechanical equipment	Vehicles and transport equipment	Other tangible assets	Assets under construction in progress	Machineries in transit	Total tangible assets
Beginning tangible assets	151,955,782	188,265,535	84,161,380	190,134,128	248,304	13,732,264	31,877,386	1,399,688	661,774,467
Increase other than through business combination acquisition, Tangible assets	524,060	449,110	4,639,364	7,395,278	58,959	9,089,870	59,324,510	6,805,831	88,286,982
Disposal, Tangible assets	0	(374)	(164,939)	(31,512)	(8)	(21,383)	(58,457)	0	(276,673)
Depreciation expense, investments in equity instruments	0	(6,294,049)	(2,628,183)	(32,699,143)	(102,497)	(5,859,707)	0	0	(47,583,579)
Impairment loss recognized in profit or loss, investments in equity instruments	0	(287,856)	(811,323)	(5,836,375)	0	(1,073)	0	0	(6,936,627)
Increase (decrease) due to exchanges and other changes Tangible assets	563,507	188,675	3,039,825	6,973,806	0	2,496,849	(13,902,190)	(1,316,288)	(1,955,816)
Ending tangible assets	153,043,349	182,321,041	88,236,124	165,936,182	204,758	19,436,820	77,241,249	6,889,231	693,308,754

(Note 1) Current period - Impairment loss recognized in profit or loss, tangible assets: Impairment loss was recognized on idle assets at the Ulsan plant.

(Note 2) Previous period - Impairment loss recognized in profit or loss, tangible assets: An impairment loss was recognized on the unused tangible assets due to the relocation of SKYBON production facilities to SK Environmental Protection Materials (Yantai) Co., Ltd.

(Note 3) Increase (decrease) due to exchanges and other changes, Tangible assets: They consist of the main account reclassification for construction in progress and reclassification to intangible assets.

Capitalized borrowing costs

Current period

(Unit: KRW one thousand)

	Disclosure amount
Capitalized borrowing costs	2,126,672

The capitalization interest rate used to determine the capitalizable borrowing costs	0.0474

Previous period (Unit: KRW one thousand)

	Disclosure amount
Capitalized borrowing costs	1,396,614
The capitalization interest rate used to determine the capitalizable borrowing costs	0.0451

Insured assets

Current period (Unit: KRW one thousand)

	Tangible assets
Insurance coverage	Comprehensive property insurance
Insured amount	1,670,017,405

Previous period (Unit: KRW one thousand)

	Tangible assets
Insurance coverage	Comprehensive property insurance
Insured amount	1,575,455,553

13. Leases

Company as a lessee

Disclosure of quantitative information on right-of-use assets

Current period (Unit: KRW one thousand)

	Building	Vehicles and transport equipment	Total assets
Beginning right-of-use assets	515,614	1,274,696	1,790,310
Acquisition of right-of-use assets	505,962	673,853	1,179,815
Decrease due to contract termination or cancellation, Right-of-use assets	(10,354)	(97,876)	(108,230)
Amortization of right-of-use assets	(174,370)	(738,491)	(912,861)
Ending right-of-use assets	836,852	1,112,182	1,949,034

Previous period (Unit: KRW one thousand)

	Building	Vehicles and transport equipment	Total assets
Beginning right-of-use assets	645,812	1,113,848	1,759,660
Acquisition of right-of-use assets	63,636	1,062,063	1,125,699
Decrease due to contract termination or cancellation, Right-of-use assets	0	(164,609)	(164,609)
Amortization of right-of-use assets	(193,834)	(736,606)	(930,440)
Ending right-of-use assets	515,614	1,274,696	1,790,310

Disclosure of maturity analysis of lease liabilities

Current period

(Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years	Total Subtotal
Total lease liabilities	1,074,825	807,244	190,764	0	2,072,833
Lease liabilities	1,053,865	764,802	174,121	0	1,992,788

Previous period

(Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years	Total Subtotal
Total lease liabilities	862,603	620,625	443,564	0	1,926,792
Lease liabilities	844,576	582,475	400,059	0	1,827,110

Disclosure of quantitative information on lease liabilities

Current period

(Unit: KRW one thousand)

	Disclosure amount
Beginning lease liabilities	1,827,110
Additions to lease liabilities	1,179,815
Decrease due to contract termination or cancellation, Lease liabilities	(111,957)
Lease liabilities' interest expenses	73,290
Payments of lease liabilities	(975,470)
Ending lease liabilities	1,992,788

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Beginning lease liabilities	1,782,154
Additions to lease liabilities	1,125,699
Decrease due to contract termination or cancellation, Lease liabilities	(167,228)
Lease liabilities' interest expenses	71,657
Payments of lease liabilities	(985,172)
Ending lease liabilities	1,827,110

Disclosure of quantitative information on leases by lessees

Current period

(Unit: KRW one thousand)

	Disclosure amount
Costs related to short-term leases for which the recognition exemption is applied	489,924
Costs related to leases of low-value assets for which the recognition exemption is applied	236,844
Amortization of right-of-use assets	912,861

Lease liabilities' interest expenses	73,290

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Costs related to short-term leases for which the recognition exemption is applied	737,781
Costs related to leases of low-value assets for which the recognition exemption is applied	228,261
Amortization of right-of-use assets	930,440
Lease liabilities' interest expenses	71,657

Total cash outflows from leases

Current period

(Unit: KRW one thousand)

	Disclosure amount
Lease cash outflows	1,702,238

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Lease cash outflows	1,951,214

The Company has a number of lease agreements executed with the options for extension and termination included. Such options are negotiated by the senior management to provide flexibility in the management of the portfolio of leased assets and to meet the business needs of the Company. The senior management apply their material judgment in determining whether it is significantly certain that such extension and termination options will be exercised.

Company as a lessor

The Company has executed operating lease agreements for a portfolio of investment real estate properties consisting of specific office and manufacturing properties. The terms of these leases range from 1 to 50 years. Included in all leases is a provision that allows for an annual increase in rental payments based on current market conditions. The lessee must also guarantee the residual value of the real estate properties.

Operating lease rental income

Current period

(Unit: KRW one thousand)

	Disclosure amount
Operating lease income	5,695,972

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Operating lease income	5,173,064

Current period

(Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 3 years or less	Over 3 years, 4 years or less	Over 4 years, 5 years or less	Over 5 years	Total Subtotal
Undiscounted operating lease income to be received	5,782,306	923,466	923,466	923,466	923,466	12,394,961	21,871,131

Previous period

(Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 3 years or less	Over 3 years, 4 years or less	Over 4 years, 5 years or less	Over 5 years	Total Subtotal
Undiscounted operating lease income to be received	5,400,854	1,065,131	874,080	708,851	708,851	8,436,347	17,194,114

14. Intangible Assets

Disclosure of detailed information about intangible assets

Current period

(Unit: KRW one thousand)

	Copyrights, patents, other industrial property rights, service operation rights	Computer software	Memberships	Total intangible assets excluding goodwill
Beginning intangible assets excluding goodwill	4,422,658	17,838,589	8,005,779	30,267,026
Increase other than through business combinations, intangible assets excluding goodwill	3,222,689	7,068,675	0	10,291,364
Disposals, intangible assets excluding goodwill	(15,096)	(1)	(1,083,320)	(1,098,417)
Other amortization, Intangible assets excluding goodwill	(1,586,166)	(6,889,472)	0	(8,475,638)
Increase (decrease) due to replacement, Intangible assets excluding goodwill	919,928	5,430,960	0	6,350,888
Intangible assets other than goodwill at the end of the period	6,964,013	23,448,751	6,922,459	37,335,223

Previous period

(Unit: KRW one thousand)

	Copyrights, patents, other industrial property rights, service operation rights	Computer software	Memberships	Total intangible assets excluding goodwill
Beginning intangible assets excluding goodwill	4,411,193	19,602,713	8,005,779	32,019,685
Increase other than through business combinations, intangible assets excluding goodwill	172,690	3,376,636	0	3,549,326

Disposals, intangible assets excluding goodwill	0	(924)	0	(924)
Other amortization, Intangible assets excluding goodwill	(1,177,374)	(6,079,503)	0	(7,256,877)
Increase (decrease) due to replacement, Intangible assets excluding goodwill	1,016,149	939,667	0	1,955,816
Intangible assets other than goodwill at the end of the period	4,422,658	17,838,589	8,005,779	30,267,026

(Note 1) Increase (decrease) due to replacement, intangible assets other than goodwill: These are the main account reclassification from the construction in progress.

Research and development costs recognized as expenses

Current period

(Unit: KRW one thousand)

	Selling, general and administrative expenses
Research and development costs	45,148,790
Research and development costs recognized as expenses	45,148,790

Previous period

(Unit: KRW one thousand)

	Selling, general and administrative expenses
Research and development costs	44,169,825
Research and development costs recognized as expenses	44,169,825

15. Investment Properties

Disclosure of detailed information on investment property

Current period

(Unit: KRW one thousand)

	Land	Building	Total investment property
Beginning investment property	16,797,406	499,928	17,297,334
Depreciation expense, Investment property	0	(42,031)	(42,031)
Ending investment property	16,797,406	457,897	17,255,303

Previous period

(Unit: KRW one thousand)

	Land	Building	Total investment property
Beginning investment property	16,797,406	541,960	17,339,366
Depreciation expense, Investment property	0	(42,032)	(42,032)
Ending investment property	16,797,406	499,928	17,297,334

Rental income generated from investment properties

Current period

(Unit: KRW one thousand)

	Disclosure amount
Rental income generated from investment properties	5,695,972

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Rental income generated from investment properties	5,173,064

Fair value of investment properties

(Unit: KRW one thousand)

	Fair value disclosed but not measured at fair value in the balance sheet
Investment properties	55,764,741

16. Trade and Other Payables

Trade and other payables

Current period

(Unit: KRW one thousand)

	Disclosure amount
Current trade payables	98,488,315
Short-term payables	38,730,036
Accrued expenses classified as current liabilities	41,581,562
Accounts payable and other current liabilities	178,799,913

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Current trade payables	104,962,434
Short-term payables	53,182,554
Accrued expenses classified as current liabilities	30,771,437
Accounts payable and other current liabilities	188,916,425

Disclosure of supplier financing agreements

(Unit: KRW one thousand)

	Supplier financing agreements

Description of agreements	The company has entered into supplier financing agreements with several key suppliers in the domestic market. Participation in the agreements is determined at the discretion of the suppliers. Suppliers participating in the supplier financing agreements can receive early payments of their receivables from the financial provider on behalf of the company. If the supplier chooses early payment, the supplier will pay a fee to the financial provider, not to the company. The financial provider must receive the goods from the company or have the company approve the invoice before making payment for the receivable. Before the payment due date, the financial provider pays the supplier the amount due. In all cases, the company pays the financial provider on the original payment due date as described above and settles the debt. The payment terms with the supplier are not renegotiated due to the agreement. The Company does not provide collateral to the financial provider. All trade payables under supplier financing agreements are included in trade payables and other payables in the balance sheet and are included in the trade payables in the table above.
The book value of trade payables that are part of the supplier financing agreements	11,388,587
The amount received by the supplier	1,624,607

17. Bonds and Borrowings

Details of borrowings

Current period

(Unit: KRW one thousand)

	Disclosure amount
Current borrowings (including bonds)	255,350,258
Current bonds and non-current bonds with liquidity substitute portion	94,970,000
The portion of liquidity substitution for non-current borrowings from financial institutions (excluding bonds)	6,666,680
The non-current portion of non-current bonds	219,404,969
The non-current portion of non-current borrowings from financial institutions (excluding bonds) that is replaced by liquidity	8,333,310
Borrowings (including bonds)	584,725,217

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Current borrowings (including bonds)	238,989,049
Current bonds and non-current bonds with liquidity substitute portion	189,855,128
The portion of liquidity substitution for non-current borrowings from financial institutions (excluding bonds)	2,550,000
The non-current portion of non-current bonds	164,557,091
The non-current portion of non-current borrowings from financial institutions (excluding bonds) that is replaced by liquidity	7,650,000

Borrowings (including bonds)	603,601,268

Disclosure of details regarding short-term borrowings

Current period

(Unit: KRW one thousand)

	Borrowing name									Total borrowing names
	Short-term borrowings									
	Hana Bank, etc. - General bank borrowings			Shinhan Bank, etc. - Commercial paper (CP)			Hana Bank, etc. - Accounts receivable discounting			
	Scope		Total scope	Scope		Total scope	Scope		Total scope	
	Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		
Borrowings, Interest rate	0.0477	0.0543				0.0455	0.0455	0.0636		
Current borrowings (including bonds)			190,000,000			50,000,000			15,350,258	255,350,258

Previous period

(Unit: KRW one thousand)

	Borrowing name									Total borrowing names
	Short-term borrowings									
	Hana Bank, etc. - General bank borrowings			Shinhan Bank, etc. - Commercial paper (CP)			Hana Bank, etc. - Accounts receivable discounting			
	Scope		Total scope	Scope		Total scope	Scope		Total scope	
	Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		
Borrowings, Interest rate										
Current borrowings (including bonds)			120,000,000			50,000,000			68,989,049	238,989,049

Disclosure of detailed information about bonds

Current period

(Unit: KRW one thousand)

	Borrowing name							Total borrowing names
	Debenture							
	The 11-2nd public placement bonds	The 12-2nd public placement bonds	The 13-1st public placement bonds	The 13-2nd public placement bonds	The 13-3rd public placement bonds	The 14-1st public placement bonds	The 14-2nd public placement bonds	
Borrowings, Maturity	2024.01.31	2024.10.30	2024.08.23	2025.02.24	2026.02.24	2026.04.24	2027.04.03	
Borrowings, Interest rate				0.0461	0.0460	0.0408	0.0417	
Debenture	0	0	0	95,000,000	70,000,000	50,000,000	100,000,000	315,000,000
Bonds issued at a discount								(625,031)
Liquidity substitute portion of current bonds and non-current bonds								(94,970,000)
Non-current portion of non-current bonds								219,404,969

Previous period

(Unit: KRW one thousand)

	Borrowing name							Total borrowing names
	Debenture							
	The 11-2nd public placement bonds	The 12-2nd public placement bonds	The 13-1st public placement bonds	The 13-2nd public placement bonds	The 13-3rd public placement bonds	The 14-1st public placement bonds	The 14-2nd public placement bonds	
Borrowings, Maturity	2024.01.31	2024.10.30	2024.08.23	2025.02.24	2026.02.24			
Borrowings, Interest rate								
Debenture	80,000,000	75,000,000	35,000,000	95,000,000	70,000,000	0		355,000,000
Bonds issued at a discount								(587,781)
Reclassification of current portion of bonds and non-current bonds								(189,855,128)
Non-current portion of non-current bonds								164,557,091

Disclosure of detailed information on long-term borrowings from financial institutions

Current period

(Unit: KRW one thousand)

	Borrowing name
	Long-term borrowings
	NongHyup Bank - Facility Loan
Borrowings, Interest rate	0.049
Financial Institution Borrowings (excluding bonds)	14,999,990
The portion of liquidity substitution for non-current borrowings from financial institutions (excluding bonds)	(6,666,680)
The non-current portion of non-current borrowings from financial institutions (excluding bonds) that is replaced by liquidity	8,333,310

Previous period

(Unit: KRW one thousand)

	Borrowing name
	Long-term borrowings
	NongHyup Bank - Facility Loan
Borrowings, Interest rate	
Financial Institution Borrowings (excluding bonds)	10,200,000
The portion of liquidity substitution for non-current borrowings from financial institutions (excluding bonds)	(2,550,000)
The non-current portion of non-current borrowings from financial institutions (excluding bonds) that is replaced by liquidity	7,650,000

18. Other Liabilities

Disclosure of other liabilities

Current period

(Unit: KRW one thousand)

		Disclosure amount
Other current liabilities		3,771,970
Other current liabilities	Current advances received	1,003,778
	Short-term unearned revenue	284,362
	Short-term deposits received	2,373,979
	Short-term security deposits payable	99,226
	Current unpaid dividends	10,625

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Other current liabilities		6,908,942
Other current liabilities	Current advances received	1,254,234
	Short-term unearned revenue	362,854
	Short-term deposits received	2,344,100

	Short-term security deposits payable	2,937,951
	Current unpaid dividends	9,803

19. Emission Rights and Liabilities

Free allocation of emission allowance by compliance year

	2021	2022	2023	2024	2025	Total planned period
Emission allowances allocated free of charge	530,173 tons	530,173 tons	530,173 tons	525,208 tons	525,208 tons	2,640,935 tons

Meanwhile, as of the end of the current period, there are no greenhouse gas emission allowances provided as collateral.

Changes in the quantity of greenhouse gas emission allowances

		2021	2022	2023	2024	2025	Total planned period
Allocation, Emission allowance quantity		301,823 tons	269,405 tons	212,415 tons	220,894 tons	220,894 tons	1,225,431 tons
Allocation, Emission allowance quantity	Free allocation, Emission allowance quantity	530,173 tons	530,173 tons	530,173 tons	525,208 tons	525,208 tons	2,640,935 tons
	Allocation cancellation and Additional allocation, Emission allowance quantity	122,941 tons	90,523 tons	33,533 tons	43,687 tons	43,687 tons	334,371 tons
	Changes due to split-off and merger, Emission allowance quantity	(351,291) tons	(351,291) tons	(351,291) tons	(348,001) tons	(348,001) tons	(1,749,875) tons
Emissions, Emission allowance quantity		(296,162) tons	(263,601) tons	(220,838) tons	0 tons	0 tons	(780,601) tons
Emissions, Emission allowance quantity	Government expenditure, Emission allowance quantity	(296,162) tons	(263,601) tons	(220,838) tons	0 tons	0 tons	(780,601) tons
Changes due to emission allowance trading, Emission allowance quantity		(13,328) tons	(11,270) tons	8,517 tons	0 tons	0 tons	(16,081) tons
Changes due to emission allowance transactions, Emission allowance quantity	Purchase, emission allowance quantity	1,300 tons	12,600 tons	12,251 tons	0 tons	0 tons	26,151 tons
	Sale, Emission allowances quantity	(14,628) tons	(23,870) tons	(3,734) tons	0 tons	0 tons	(42,232) tons
Balance carried forward, Emission allowances quantity		38,220 tons	30,553 tons	25,087 tons	25,181 tons	0 tons	119,041 tons
Carried forward to the next period, Emission allowance quantity		(30,553) tons	(25,087) tons	(25,181) tons	0 tons	0 tons	(80,821) tons
End of period, emission allowance quantity		0 tons	0 tons	0 tons	246,075 tons	220,894 tons	466,969 tons

Changes in the book value of greenhouse gas emission allowances

(Unit: KRW one thousand)

		2021	2022	2023	2024	2025	Total planned period
Allocation, Emission allowances		0	0	0	0	0	0
Allocation, Emission allowances	Free allocation, emission allowance	0	0	0	0	0	0
	Allocation cancellation and Additional allocation, Emission allowances	0	0	0	0	0	0
	Changes due to split-off and merger Emission allowances	0	0	0	0	0	0
Emission, Emission allowances		0	0	0	0	0	0
Emission, Emission allowances	Government expenditure, Emission allowances	0	0	0	0	0	0
Changes due to emission allowance trading, Emission allowance		45,025	15,249	166,925	0	0	227,199
Changes due to emission allowance transactions, Emission allowances	purchase, Emission allowances	45,025	446,797	166,925	0	0	658,747
	Sale, Emission allowances	0	(431,548)	0	0	0	(431,548)
Carried forward from previous period, Emission allowances		0	45,025	60,274	227,199	0	332,498

Carried forward to the next period, emission allowances	(45,025)	(60,274)	(227,199)	0	0	(332,498)
End of period, Emission allowances	0	0	0	227,199	0	227,199

Changes in the quantity of emission allowance assets, Current period

	Disclosure amount
Beginning balance of emissions allowance quantity, Emissions allowance assets	13,981 tons
Purchased emissions allowance quantity, Emissions allowance assets	0 tons
Ending emissions allowance quantity, Emissions allowance assets	13,981 tons

Previous period

	Disclosure amount
Beginning balance of emissions allowance quantity, Emissions allowance assets	1,730 tons
Purchased emissions allowance quantity, Emissions allowance assets	12,251 tons
Ending emissions allowance quantity, Emissions allowance assets	13,981 tons

Changes in the amount of emissions allowance assets

Current period

(Unit: KRW one thousand)

	Emissions allowances
Beginning balance of current emissions allowances	227,199
Purchased emissions allowance, Emissions allowance assets	0
Ending balance of current emissions allowances	227,199

Previous period

(Unit: KRW one thousand)

	Emissions allowances
Beginning balance of current emissions allowances	60,274
Purchased emissions allowance, Emissions allowance assets	166,925
Ending balance of current emissions allowances	227,199

There are no changes in emission rights liabilities for the current period.

Confirmed and estimated greenhouse gas emissions Current period

	Disclosure amount
Confirmed greenhouse gas emissions data	
Estimated greenhouse gas emissions	231,000 tCO ₂ -eq

Previous period

	Disclosure amount

Confirmed greenhouse gas emissions data	220,838 tCO2-eq
Estimated greenhouse gas emissions	

20. Defined Benefit Liabilities (Assets)

The Company operates a defined benefit plan for its employees, and the actuarial valuation of the defined benefit obligation (asset) was conducted using the projected unit credit method.

Disclosure of net defined benefit liability (asset)

Current period

(Unit: KRW one thousand)

	Present value of defined benefit liabilities	External fund assets	Total net defined benefit liability (assets)
Beginning balance of net defined benefit liability (assets)	113,649,551	(137,527,078)	(23,877,527)
Current service cost, Net defined benefit liability (assets)	11,072,651	0	11,072,651
Past service cost, Net defined benefit liability (assets)	1,626,371	0	1,626,371
Interest expense (income), Net defined benefit liability (assets)	4,253,584	(5,189,667)	(936,083)
Total remeasurement gains and losses, net defined benefit liabilities (assets)	6,321,797	(990,608)	5,331,189
Amount paid under the plan, net defined benefit liabilities (assets)	(8,004,211)	7,214,191	(790,020)
Contributions paid by the company to the plan, net defined benefit liabilities (assets)	0	(15,000,000)	(15,000,000)
Affiliates' transfers	(503,040)	(473,452)	(976,492)
Net defined benefit liabilities (assets) at the end of the period	128,416,704	(151,966,614)	(23,549,910)
Defined benefit obligations, present value			128,416,704
External fund assets, fair value			(151,966,614)

Previous period

(Unit: KRW one thousand)

	Present value of defined benefit liabilities	External fund assets	Total net defined benefit liability (assets)
Beginning balance of net defined benefit liability (assets)	96,697,514	(123,736,262)	(27,038,748)
Current service cost, Net defined benefit liability (assets)	10,205,756	0	10,205,756
Past service cost, Net defined benefit liability (assets)	0	0	0
Interest expense (income), Net defined benefit liability (assets)	4,771,628	(6,145,694)	(1,374,066)

Total remeasurement gains and losses, net defined benefit liabilities (assets)	10,539,391	622,754	11,162,145
Amount paid under the plan, net defined benefit liabilities (assets)	(7,644,001)	6,450,801	(1,193,200)
Contributions paid by the company to the plan, net defined benefit liabilities (assets)	0	(15,000,000)	(15,000,000)
Affiliates' transfers	(920,737)	281,323	(639,414)
Net defined benefit liabilities (assets) at the end of the period	113,649,551	(137,527,078)	(23,877,527)
Defined benefit obligations, present value			113,649,551
External fund assets, fair value			(137,527,078)

Meanwhile, the plan assets as of the end of the reporting period consist of time deposits, etc.

Retirement benefit expenses included in profit or loss

Current period

(Unit: KRW one thousand)

	Disclosure amount
Current service cost, Defined benefit plan	11,072,651
Past service cost, Defined benefit plan	1,626,371
Interest cost, Defined benefit plan	4,253,584
Interest revenue, Defined benefit plan	(5,189,667)
Retirement benefit expense, Defined benefit plan	11,762,939

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Current service cost, Defined benefit plan	10,205,756
Past service cost, Defined benefit plan	0
Interest cost, Defined benefit plan	4,771,628
Interest revenue, Defined benefit plan	(6,145,694)
Retirement benefit expense, Defined benefit plan	8,831,690

Key assumptions used for actuarial valuation,

Current period

	Weighted range
Actuarial assumption regarding the discount rate	0.0334
Expected return on plan assets (percentage)	0.0334
Actuarial assumption regarding future salary increases	0.0597

Previous period

	Weighted range
Actuarial assumption regarding the discount rate	0.0398
Expected return on plan assets (percentage)	0.0398
Actuarial assumption regarding future salary increases	0.0631

Components of remeasurement elements of the defined benefit plan

Current period

(Unit: KRW one thousand)

	Disclosure amount
Actuarial losses (gains) arising from changes in demographic assumptions, Net defined benefit liability (assets)	2,749
Actuarial losses (gains) arising from changes in financial assumptions, Net defined benefit liability (assets)	4,054,478
Actuarial losses (gains) arising from experience adjustments, Net defined benefit liability (assets)	2,264,570
Return on external fund assets excluding amounts included in interest, Net defined benefit liability (assets)	(990,608)
Total remeasurement gains and losses, Net defined benefit liability (assets)	5,331,189

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Actuarial losses (gains) arising from changes in demographic assumptions, Net defined benefit liability (assets)	105,540
Actuarial losses (gains) arising from changes in financial assumptions, Net defined benefit liability (assets)	7,901,193
Actuarial losses (gains) arising from experience adjustments, Net defined benefit liability (assets)	2,532,658
Return on external fund assets excluding amounts included in interest, Net defined benefit liability (assets)	622,754
Total remeasurement gains and losses, Net defined benefit liability (assets)	11,162,145

Disclosure of sensitivity analysis for actuarial assumptions

Current period

(Unit: KRW one thousand)

	Actuarial assumption regarding the discount rate	Actuarial assumption regarding future salary increase rate
Possible increase rates within a reasonable range of actuarial assumptions	0.01	0.01
Increase (decrease) in the defined benefit liability due to possible increases within a reasonable range of actuarial assumptions	(8,415,953)	9,575,471

Possible decrease rates within a reasonable range of actuarial assumptions	0.01	0.01
Increase (decrease) in the defined benefit obligation due to possible decreases within a reasonable range of actuarial assumptions	9,580,334	(8,566,721)

Previous period

(Unit: KRW one thousand)

	Actuarial assumption regarding the discount rate	Actuarial assumption regarding future salary increase rate
Possible increase rates within a reasonable range of actuarial assumptions	0.01	0.01
Increase (decrease) in the defined benefit liability due to possible increases within a reasonable range of actuarial assumptions	(7,393,200)	8,449,361
Possible decrease rates within a reasonable range of actuarial assumptions	0.01	0.01
Increase (decrease) in the defined benefit obligation due to possible decreases within a reasonable range of actuarial assumptions	8,411,458	(7,558,619)

The above sensitivity analysis is based on the method of estimating the impact on the defined benefit obligation if significant actuarial assumptions change within a reasonable range at the reporting date. Since it is unlikely that changes in assumptions would occur independently of each other, this sensitivity analysis may not reflect the actual changes in the defined benefit obligation.

Disclosure of the maturity profile of the defined benefit obligation

Current period

(Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years, 10 years or less	Over 10 years, 20 years or less	Over 20 years	Total Subtotal
Estimated benefit payments expected to be made	22,099,334	14,146,470	41,324,206	64,296,047	139,617,348	67,129,821	348,613,226
Weighted defined benefit liabilities Average duration							7 year and 3 months

Previous period

(Unit: KRW one thousand)

	Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years, 10 years or less	Over 10 years, 20 years or less	Over 20 years	Total Subtotal
Estimated benefit payments expected to be made	17,980,391	14,219,040	37,391,298	60,471,065	130,986,657	66,688,852	327,737,303
Weighted defined benefit liabilities Average duration							7 year and 3 months

Disclosure of expected contributions for the next annual reporting period

(Unit: KRW one thousand)

	Defined benefit plan with fully or partially funded assets
Estimated contributions expected to be paid during the next annual reporting period	12,073,010

Disclosure of defined contribution plan

Current period

(Unit: KRW one thousand)

	Disclosure amount
Retirement benefit expense, Defined contribution plan	445,456

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Retirement benefit expense, Defined contribution plan	456,371

21. Contract Liabilities

Disclosure of contract liabilities arising from contracts with customers

Current period

(Unit: KRW one thousand)

	Assets and liabilities		Total assets and liabilities
	Liabilities		
	Contract liabilities		
	Refund liabilities	Unearned revenue	
Current contract liabilities	736,166	9,241,193	9,977,359

Previous period

(Unit: KRW one thousand)

	Assets and liabilities		Total assets and liabilities
	Liabilities		
	Contract liabilities		
	Refund liabilities	Unearned revenue	
Current contract liabilities	618,302	4,194,299	4,812,601

Changes in contract liabilities

Current period

(Unit: KRW one thousand)

	Assets and liabilities		Total assets and liabilities
	Liabilities		
	Contract liabilities		
	Refund liabilities	Unearned revenue	

Beginning contract liabilities	618,302	4,194,299	4,812,601
Increase and decrease in contract liabilities	117,864	5,046,894	5,164,758
Contract liabilities at the end of the period	736,166	9,241,193	9,977,359

Previous period

(Unit: KRW one thousand)

	Assets and liabilities		Total assets and liabilities
	Liabilities		
	Contract liabilities		
	Refund liabilities	Unearned revenue	
Beginning contract liabilities	1,072,707	3,033,286	4,105,993
Increase and decrease in contract liabilities	(454,405)	1,161,013	706,608
Contract liabilities at the end of the period	618,302	4,194,299	4,812,601

(Note 1) Refund liabilities: The Company appropriates the contract liabilities for the returned goods of expected returns based on past experience with returns for the products sold. All assumptions applied for the contract liability calculations above were based on the current products' sales levels and the currently available information on the returns expected to occur during the returnable period for products sold under returnable conditions.

(Note 2) Unearned revenue The amounts received in advance from the customers related to the product production and relocation activities were recognized as the contract liabilities.

Classification of contract liabilities as current and non-current

Current period

(Unit: KRW one thousand)

		Assets and liabilities
		Liabilities
		Contract liabilities
Current contract liabilities		9,977,359
Current contract liabilities	Current provision for returns	736,166
	Short-term unearned revenue	9,241,193
Non-current contract liabilities		0
Non-current contract liabilities	Non-current provision for returns	0
	Long-term unearned revenue	0

Previous period

(Unit: KRW one thousand)

		Assets and liabilities
		Liabilities
		Contract liabilities
Current contract liabilities		4,812,601
Current contract liabilities	Current provision for returns	618,302
	Short-term unearned revenue	4,194,299
Non-current contract liabilities		0
Non-current contract liabilities	Non-current provision for returns	0

	Long-term unearned revenue	0

22. Provisioning Liabilities

Disclosure of other provisions for liabilities

Current period

(Unit: KRW one thousand)

		Disclosure amount
Current provisions for liabilities		321,883
Current provisions for liabilities	Current legal provisions for litigation	0
	Current provisions for other provisions	321,883
Non-current portion of provisioning liabilities		5,957,148
Non-current portion of provisioning liabilities	Non-current legal provisions for litigation	5,957,148
Provisioning liabilities		6,279,031

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Current provisions for liabilities		12,476,761
Current provisions for liabilities	Current legal provisions for litigation	11,013,136
	Current provisions for other provisions	1,463,625
Non-current portion of provisioning liabilities		5,957,148
Non-current portion of provisioning liabilities	Non-current legal provisions for litigation	5,957,148
Provisioning liabilities		18,433,909

(Note 1) Current provision for legal disputes A provision for the amount lost in the second trial of the lawsuit against Novartis AG for patent infringement and damages has been recognized as a provision for liabilities, and it was paid during the current period (refer to Note 24). (Note 2) Non-current provision for legal disputes Provisions have been recognized based on the best estimate regarding the ongoing humidifier disinfectant lawsuit.

23. Risk Management and Derivative Instruments

Risk management activities

The Company is exposed to the foreign currency risk for some of the sales and purchases following the international transactions conducted. To mitigate such risk, the Company regularly monitors the net exposure in major currencies (dollar, euro, and yen) based on the sales and purchases expected over the next 12 months. Furthermore, the Company executes foreign currency forward contracts to avoid such exposure.

For business and sales purposes, the Company has not designated such currency forward contracts for hedging. Thus, the changes in the fair value of all forward contracts are recognized as profit or loss for the relevant period.

Disclosure of derivative financial assets

Current period

(Unit: KRW one thousand)

	Financial instruments	Total financial instruments
	Derivatives	

	Currency forward contracts	Option contracts	
		Written put options	
Current derivative financial assets	0	0	0
Non-current derivative assets	0	8,784,996	8,784,996

Previous period

(Unit: KRW one thousand)

	Financial instruments		Total financial instruments
	Derivatives		
	Currency forward contracts	Option contracts	
		Written put options	
Current derivative financial assets	215,849	0	215,849
Non-current derivative assets	0	5,055,776	5,055,776

Disclosure of derivative financial liabilities

Current period

(Unit: KRW one thousand)

	Designation of derivative instruments for hedging purposes		
	For trading purposes		
	Financial instruments		Total financial instruments
	Derivatives		
	Currency forward contracts	Option contracts	
		Purchased call options	
Current derivative liabilities	3,531,729	429,063	3,960,792

Previous period

(Unit: KRW one thousand)

	Designation of derivative instruments for hedging purposes		
	For trading purposes		
	Financial instruments		Total financial instruments
	Derivatives		
	Currency forward contracts	Option contracts	
		Purchased call options	
Current derivative liabilities	81,934	0	81,934

Currency forward contracts

The Company enters into derivative contracts for the purpose of hedging foreign exchange risk arising from foreign currency transactions.

Disclosure of currency forward contracts

Current period

(Unit: KRW one thousand)

	Financial instruments
	Derivatives

	Currency forward contracts	
	Buy	Sell
Counterparties, derivative financial instruments		Hana Bank, etc.
Contract amount, Derivative financial instruments		99,019,314
Fair value, Derivative financial instruments		(3,531,729)

Previous period

(Unit: KRW one thousand)

	Financial instruments	
	Derivatives	
	Currency forward contracts	
	Buy	Sell
Counterparties, derivative financial instruments	Hana Bank, etc.	Hana Bank, etc.
Contract amount, Derivative financial instruments	11,722,485	15,486,100
Fair value, Derivative financial instruments	(31,372)	165,287

Disclosure of option contracts

Current period

(Unit: KRW one thousand)

	Total measurement			
	Fair value			
	Financial instruments			Total financial instruments
	Derivatives			
	Option contracts			
	Written put options		Purchased call options	
	Investments in shares of SK chemicals Daejeong Co., Ltd.	Investments in shares of HDC Polyall Co., Ltd.	Preferred shares of Tiumbio Co., Ltd.	
Current derivative liabilities			429,063	429,063
Non-current derivative financial liabilities	1,085,246	7,699,750		8,784,996

Previous period

(Unit: KRW one thousand)

	Total measurement			
	Fair value			
	Financial instruments			Total financial instruments
	Derivatives			
	Option contracts			
	Written put options		Purchased call options	
	Investments in shares of SK chemicals Daejeong Co., Ltd.	Investments in shares of HDC Polyall Co., Ltd.	Preferred shares of Tiumbio Co., Ltd.	
Current derivative liabilities			0	0

Non-current derivative financial liabilities	719,000	4,336,776	5,055,776

(Note 1) Written put options - Investments in shares of SK chemicals Daejeong Co., Ltd.: They are put options that allow the company to sell its shares to Daejeong Chemicals & Metals Co., Ltd. at the specified price.

(Note 2) Written put options - Investments in shares of HDC Polyall Co., Ltd.: They are put options that allow the company to sell its shares to HDC Hyundai EP Co., Ltd. at the specified price.

(Note 3) Call options - Convertible preferred shares of Tiumbio Co., Ltd. The company has an obligation to purchase convertible preferred shares at the specified price from a third party designated by Tiumbio Co., Ltd.

The Company is exposed to certain risks in connection with ongoing business operations. Foreign exchange and interest rate risks are managed using derivatives. The Company's risk management strategies and methods are described under Note 34 below.

24. Contingencies and Agreements

Disclosure of contingent liabilities related to legal disputes

(Unit: KRW one thousand)

Classification of legal contingency liabilities											
Lawsuit (Defendant)									Lawsuit (Plaintiff)		
	Indemnity claims 1	Indemnity claims 2	Indemnity claims 3	Indemnity claims 4	Claim for damages 1	Claim for damages 2	Claim for patent infringement injunction and damages 1	Claim for damages 3	Claim for patent infringement injunction and damages 2	Claims for the revocation of corrective order, etc. 1	Claims for the revocation of corrective order, etc. 2
Plaintiff, Lawsuit case	Korea Environmental Industry and Technology Institute	Korea Environmental Industry and Technology Institute	National Health Insurance Service	Republic of Korea	Kang Chan Ho and 295 others	Aekyung Industrial Co., Ltd.	Novartis AG	Republic of Korea	Company	Company and 1 other	Company and 1 other
Defendant, Lawsuit case	Company and 12 others	Company and 12 others	Company and 12 others	Company and 19 others	Company and 19 others	Company	Company	Company and 26 others	Novartis AG	Fair Trade Commission	Fair Trade Commission
Lawsuit amount	2,240,000	294,414	10,782,868	4,910,029	11,200,000	3,649,743	12,146,921	10	17,853,079	163,000	161,667
Lawsuit progress/status	1st trial in progress	1st trial in progress	1st trial in progress	1st trial in progress	1st trial in progress	2nd trial in progress	3rd trial in progress	1st trial in progress	3rd trial in progress	Appeal after losing in the second trial	2nd trial in progress

(Note 1) Indemnity claims: As of the end of the current period, part of the land owned by the Company has been provisionally seized in connection with the litigation above.

(Note 2) Claim for indemnity / Claim for damages 1 / Claim for damages 2: This is a civil lawsuit related to humidifier disinfectant damage with the Company as the defendant, and several other civil lawsuits are ongoing in addition to the aforementioned case.

(Note 3) Claim for damages 3: This is a lawsuit with the company as the defendant, and the lawsuit amount may change during the course of the proceedings.

In addition to the aforementioned litigation, the Company has been indicted for violating the Special Act on Remedy for Damage Caused by Humidifier Disinfectants. This is based on allegations that the Company submitted false information to the Ministry of Environment, as required for data submission, and a related criminal trial is currently underway.

The outcome of ongoing litigation as of the end of the current period cannot be predicted at this time. A provision has been recognized based on the best estimate, considering the likelihood of a favorable or unfavorable outcome (refer to Note 22).

Disclosure of financial agreements entered into on behalf of subsidiaries

(Unit: KRW one million)

	Types of agreement	
	Agreement for capital substitute shareholder loans repayment	Establishment of collateral over shares and capital substitute shareholder loans
	All subsidiaries	
	Subsidiaries	

	SK Multi-Utility Co., Ltd.	
Description of the details of collateral provided or received for receivables and payables arising from transactions with related parties	An agreement has been entered into to make a capital substitute shareholder loan contribution in the form of additional investment or subordinated loans, in accordance with the Project Financing financial agreement of SK multi-utility Co., Ltd. (a subsidiary), which involves borrowings from the Project Financing syndicate led by KB Kookmin Bank and others, totaling 530 billion KRW, to be made by June 30, 2025.	An agreement has been entered into The Company has established collateral rights on all shares and shareholder loans in lieu of capital that it currently holds or will hold in the future in SK Multi-Utility Co., Ltd., for the project financing agreement with a limit of 120% of the loan agreement amount (530 billion).
Outstanding agreement balance entered into by the company, related party transactions	119,100	
Commitments related to agreements, Related party transactions	The investor is committed to completing the entire project facility by the scheduled completion date at its own responsibility and cost, operating the facility within the pre-approved annual operating budget. In the event that SK multi-utility Co., Ltd. faces a funding shortage, the company is committed to depositing the full amount of the required funds to the borrower.	

Disclosure of agreements

(Unit: KRW one million)

	Types of agreement							
	Loan agreement							
	Agreements related to credit limits, etc.		Trade finance agreement		Derivative financial instrument margin exemption limit agreement		Performance guarantee	
	Counterparty to the transaction							
	Hana Bank, etc.	Seoul Guarantee Insurance, etc.	Hana Bank, etc.	Seoul Guarantee Insurance, etc.	Hana Bank, etc.	Seoul Guarantee Insurance, etc.	Hana Bank, etc.	Seoul Guarantee Insurance, etc.
Total loan agreement amount	277,000				24,000			21
Total loan agreement amount (USD) [USD, million]			120.0		165.5			
Total loan agreement amount (EUR) [EUR, million]			46.8					

Joint and several liability for debt repayment

	Types of agreement	
	Joint and several repayment obligation	
	All related parties	
	Controlling company	Subsidiaries
	SK Discovery Co., Ltd.	SK bioscience Co., Ltd.
Regulatory basis for joint and several liability for repayment	Article 530-9, Paragraph 1 of the Commercial Act	Article 530-9, Paragraph 1 of the Commercial Act

Debts subject to joint and several liability for repayment	The existing debt of the company and the surviving entity, SK discovery Co., Ltd., that occurred prior to the split date of December 1, 2017	The existing debt of the company and the newly established entity, SK bioscience Co., Ltd., that occurred prior to the split date of July 1, 2018

Fair Trade Commission's corrective actions

The Fair Trade Commission determined that the act of labeling the humidifier disinfectants before the Company's split-off violated the Act on Fair Labeling and Advertising, and took corrective actions, imposed fines, and filed a complaint with the prosecutors' office. The Company must carry out such corrective actions and the order to pay fines issued by the Fair Trade Commission jointly with SK Discovery Co., Ltd., the surviving company of split-off.

Disclosure of land purchase rights

	Types of agreement	
	Land purchase rights	
	Counterparty to the transaction	
	HDC Polyall Co., Ltd. and Toray Advanced Materials Korea Inc.	SK Chemicals Daejeong Co., Ltd.
Description of agreements	The right to acquire the land if HDC Polyall Co., Ltd. and Toray Advanced Materials Korea Inc. either transfer the business acquired from the company or discontinue its operation	The right to acquire the land of SK chemicals Daejeong Co., Ltd. if the company exercises the put option on its shares in SK chemicals Daejeong Co., Ltd. or if SK chemicals Daejeong Co., Ltd. discontinues its business.

Agreement for the acquisition of shares in a subsidiary

	Types of agreement
	Agreement for the transfer of the obligation to pay registered capital
	Counterparty to the transaction
	Shuye Environmental Protection Technology Co., Ltd.
Description of agreements	The agreement for the transfer of the obligation to pay registered capital of Shuye-SK environmental protection materials (Shantou) Co., Ltd., a subsidiary of the company, to Shuye Environmental Protection Technology Co., Ltd.
Method of performing the agreement	The obligation to pay the transferred registered capital will be fulfilled through 1/2 of the relevant patents and utility model rights held by Shuye Environmental Protection Technology Co., Ltd.

Explanation of the ownership percentage after the agreement	After the payment, Shuye Environmental Protection Technology Co., Ltd. will acquire up to 44.9% of the shares in Shuye-SK environmental protection materials (Shantou) Co., Ltd. However, the ownership percentage may change depending on the terms of the agreement.

25. Related Parties

25-1 As of the end of the current period, the details of the Company's related parties are as follows.

Classification	Company Name
Controlling company	SK Discovery Co., Ltd.
Subsidiaries	SK bioscience Co., Ltd. and its subsidiaries, SK Multi-Utility Co., Ltd., SK Chemicals Daejeong Co., Ltd., SK environmental protection materials (Yantai) Co., Ltd., SK environmental protection materials (Shanghai) Co., Ltd., SK Chemicals America, SK Chemicals GmbH SK chemicals Malaysia, Shuye-SK environmental protection materials (Shantou) Co., Ltd.
Joint ventures and affiliates	JSI Co., Ltd., Entis Co., Ltd., HDC Polyall Co., Ltd.,
Others	Subsidiaries and affiliates of SK Discovery Co., Ltd., affiliates of SK corporate group, etc. (Note 1) TiumBio Co., Ltd. (Note 2)

(Note 1) The Fair Trade Commission-designated large business group affiliates are considered related parties based on the substantive relationship as defined in Paragraph 10 of K-IFRS 1024.

(Note 2) During the previous period, the company acquired shares in Tiumbio Co., Ltd., and since the company holds the right to appoint directors, it has significant influence, and therefore, it is included as another related party.

Disclosure of related party transactions

Current period

(Unit: KRW one thousand)

All related parties																											All related parties Related party Total
Related parties																											
Controlling company	Subsidiaries											Affiliates			Other related parties												
	SK discovery Co., Ltd.	SK bioscience Co., Ltd.	SK multi-utility Co., Ltd.	SK chemical Daejeong Co., Ltd.	SK chemicals (Shantou) Co., Ltd.	SK environmental protection materials (Shanghai) Co., Ltd.	SK environmental protection materials (Yantai) Co., Ltd.	Shuye-SK environmental protection materials (Shantou) Co., Ltd.	SK Chemicals America	SK Chemicals GmbH	SK Chemicals Malaysia	SK Chemicals Asia Co., Ltd.	JSI Co., Ltd.	HDC Polyall Co., Ltd.	SK gas Co., Ltd.	SK plasma Co., Ltd.	SK advanced Co., Ltd.	Huatai Co., Ltd.	SK ecoplast Co., Ltd.	SK reengineering Co., Ltd.	SK networks Co., Ltd.	SK NETWORKS HONGKONG	SK geoscentric Co., Ltd.	SK Co., Ltd.	Happy Namoo Ltd.	Others	
Sales of goods from the sale of goods Related parties Transaction	251,051	16,906,532	1,143,214	417,868		22,867,404	5,344,873	859,600	97,307,317	106,032,592	0	1,619,338	158,760	365,243	438,315	1,758,809	515,021	398,400	0	238,933	4,418,590	0	0	0	0	1,399,391	262,041,251
Other income and asset sales Related party transactions	436,524	99,659	780,252	702,055		20,720	685,276	21,191	0	13,770	0	5,194,172	129,588	0	28,396	952,393	0	0	0	417,868	0	0	0	0	0	3,040	9,484,904
Purchase of goods Related party transactions	0	0	0	0		0	27,380,136	28,038,392	0	0	0	0	82,596	0	6,105,922	0	3,452,085	7,090,141	0	0	12,909,145	22,436,024	39,150	0	718,133	0	108,251,724

Other expenses and capital expenditures, Related parties Transaction	26,031	0	87,740,431	2,391	3,173,068	4,633	126,615	6,085	497,159	726,556	2,704	77,127	0	751,838	2,525	0	0	184,273	0	109,695	0	0	10,991,509	6,753,094	5,884,960	97,058,682

Previous period

(Unit: KRW one thousand)

All related parties																											All related parties Related party Total
Related parties																											
Controlling company	Subsidiaries											Affiliates			Other related parties												
SK discovery Co., Ltd.	SK Insurance Co., Ltd.	SK multi-utility Co., Ltd.	SK chemicals Daewon Co., Ltd.	SK chemicals (Shanghai) Co., Ltd.	SK environmental protection materials (Shanghai) Co., Ltd.	SK environmental protection materials (Yantai) Co., Ltd.	Shuey-SK environmental protection materials (Shantou) Co., Ltd.	SK Chemicals America	SK Chemicals GmbH	SK Chemicals Malaysia	Enfs Co., Ltd.	JSCo., Ltd.	HDC Polyall Co., Ltd.	SK gas Co., Ltd.	SK plasmaCo., Ltd.	SK advancedCo., Ltd.	Huaili Co., Ltd. Co., Ltd.	SK ecoplantCo., Ltd.	SK engineering Co., Ltd.	SK networks Co., Ltd.	SK NETWORKS HONGKONG	SK geocentric Co., Ltd.	SK Co., Ltd.	Happy Narae Ltd.	Others		
Sales of goods from the sale of goods Related parties Transaction	31,818	16,856,002	1,102,815	446,102	0	18,486,176	7,343,563	668,938	66,401,758	96,875,889	0	1,283,481	184,240	724,596	351,960	2,672,810	605,809	558,904	0	150,322	12,283,871	0	0	0	0	3,024,962	230,054,036
Other income and asset sales Related party transactions	485,574	110,832	702,971	1,084,049	2,042	63,938	596,617	0	4,207	8,065	0	4,868,952	124,459	0	0	421,576	10,426	0	0	141,477	0	0	0	0	0	163	8,823,347
Purchase of goods Related party transactions	0	0	0	0	0	0	11,536,128	2,292,147	0	0	0	0	88,440	0	6,709,690	0	3,162,573	14,815,138	0	0	10,774,941	18,396,661	1,940,089	0	903,572	246,340	70,865,719
Other expenses and capital expenditures, Related parties Transaction	0	0	70,179,662	0	0	3,096,938	105,537	0	71,877	476,708	738,401	429	87,014	0	931,682	12,739	0	0	180,763	0	106,862	0	0	8,175,797	6,480,314	7,518,173	98,162,916

Disclosure of related party transactions _ Acquisition of tangible assets

Current period

(Unit: KRW one thousand)

	All related parties
	Other related parties
	SK Co., Ltd.
Purchase of real estate and other assets, related party transactions	4,177,172

Previous period

(Unit: KRW one thousand)

	All related parties
	Other related parties
	SK Co., Ltd.
Purchase of real estate and other assets, related party transactions	2,235,313

Disclosure of the receivable and payable balances related to related party transactions

Current period

(Unit: KRW one thousand)

All related parties																											All related parties - Related party Total
Related parties																											
Controlling company		Subsidiaries										Affiliates					Other related parties										
	SK discovery Co., Ltd.	SK bio-science Co., Ltd.	SK multi-utility Co., Ltd.	SK chemicals Daewoo Co., Ltd.	SK chemicals (Suwon) Co., Ltd.	SK environmental protection materials (Shanghai) Co., Ltd.	SK environmental protection materials (Yantai) Co., Ltd.	Shuey-SK environmental protection materials (Shanghai) Co., Ltd.	SK Chemicals America	SK Chemicals GmbH	SK Chemicals Malaysia	SK Chemicals (Taiwan) Co., Ltd.	JSI Co., Ltd.	HDC Polyell Co., Ltd.	SK gas Co., Ltd.	SK plasma Co., Ltd.	SK advanced Co., Ltd.	Huatai Co., Ltd.	SK ecoplast Co., Ltd.	SK ecoengineering Co., Ltd.	SK networks Co., Ltd.	SK NETWORKS HONGKONG	SK geoscientific Co., Ltd.	SK Co., Ltd.	Happy Name Ltd.	Others	
Trade receivables related party transaction	35,000	245,499	305,270	106,627		3,361,372	1,784,955	1,528,538	54,506,315	52,518,056			153,665	0	82,227	34,037	84,762	44,970	97,152	0	19,412	72,606	0	0	0	6,587	114,987,070
Other receivables related party transaction	0	0	1,854	9,344		20,720	597,049	246,973	0	0			671,675	2,440,000	0	26,396	171,969	0	0	131,541	21,142	0	426,029	0	0	0	4,968,691
Trade payables related party transaction	0	0	0	0	0	0	2,844,870	0	0	0	0	0	0	12,778	0	619,724	0	183,501	0	0	1,556,203	3,098,484	0	0	10,544	0	8,326,104
Other payables related party transaction	112,566	0	6,156,433	50	0	0	4,965	0	0	0	0	0	0	8,762	0	0	305,269	0	0	0	0	0	2,697,038	665,505	1,284,717	11,235,305	

Previous period

(Unit: KRW one thousand)

All related parties																									All related parties Related party Total		
Related parties																											
	Controlling company											Subsidiaries			Affiliates				Other related parties								
	SK discovery Co., Ltd.	SK bio-science Co., Ltd.	SK multi-utility Co., Ltd.	SK chemicals Daegu Co., Ltd.	SK chemicals (Suwon) Co., Ltd.	SK environmental protection materials (Shanghai) Co., Ltd.	SK environmental protection materials (Yantai) Co., Ltd.	Shuey-SK environmental protection materials (Shanghai) Co., Ltd.	SK Chemicals America	SK Chemicals GmbH	SK Chemicals Malaysia	Erta Co., Ltd.	JSI Co., Ltd.	HDC Polyell Co., Ltd.	SK gas Co., Ltd.	SK plasma Co., Ltd.	SK advanced Co., Ltd.	Huatai Co., Ltd.	SK ecoplast Co., Ltd.	SK ecoengineering Co., Ltd.	SK networks Co., Ltd.	SK NETWORKS HONGKONG	SK geoscentric Co., Ltd.	SK Co., Ltd.	Happy Name Ltd.	Others	
Trade receivables related party transaction	35,000	286,996	281,238	112,176	0	2,919,108	2,386,812	666,938	28,630,163	38,007,032	0	224,199	0	192,389	32,263	56,317	39,684	91,520	0	12,252	785,678	0	0	0	0	561,724	76,325,511
Other receivables related party transaction	42,480	8,309	1,590	8,465	20,851	0	2,757,433	0	0	0	0	1,000,174	3,040,000	0	0	183,098	0	0	131,541	21,981	0	208,843	0	0	0	0	7,424,765
Trade payables related party transaction	0	0	0	0	0	0	2,381,814	14,777	0	0	0	0	12,144	0	423,297	0	0	5,325,863	0	0	1,148,477	1,570,709	6,435	0	9,084	331,069	11,223,666
Other payables related party transaction	143,882	0	7,116,476	9,228	0	314,162	104,807	0	0	14,567	60,538	0	6,699	0	0	400,325	0	0	0	133,330	0	0	0	1,618,648	762,517	2,013,959	12,699,168

Disclosure of related party financing transactions (investments)

Previous period

(Unit: KRW one thousand)

All related parties	
Related parties	

	Subsidiaries	Other related parties
	Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.	Tiumbio Co., Ltd.
Cash capital contributions, capital contribution payments	66,094,000	19,999,995

Disclosure of related party financing transactions

Current period

(Unit: KRW one thousand)

	All related parties
	Related parties
	Affiliates
	JSI Co., Ltd.
Loan transactions	3,040,000
Loan transactions, Recoveries	(600,000)
Loan transactions	2,440,000
Allowance for doubtful accounts on the receivable balance from related party transactions	(2,440,000)

Previous period

(Unit: KRW one thousand)

	All related parties
	Related parties
	Affiliates
	JSI Co., Ltd.
Loan transactions	3,400,000
Loan transactions, Recoveries	(360,000)
Loan transactions	3,040,000
Allowance for doubtful accounts on the receivable balance from related party transactions	(3,040,000)

Dividend received from related parties

Current period

(Unit: KRW one thousand)

	All related parties
	Related parties
	Subsidiaries
	SK Chemicals Daejeong
Dividends received	600,000

Previous period

(Unit: KRW one thousand)

	All related parties
	Related parties

	Subsidiaries
	SK Chemicals Daejeong
Dividends received	1,000,000

Dividends paid to related parties

Current period

(Unit: KRW one thousand)

	All related parties
	Related parties
	Controlling company
	SK Discovery Co., Ltd.
Dividends recognized as distributions to owners	4,586,985

Previous period

(Unit: KRW one thousand)

	All related parties
	Related parties
	Controlling company
	SK Discovery Co., Ltd.
Dividends recognized as distributions to owners	10,585,349

Payment guarantees provided for related parties

Current Period

	All related parties			
	Related parties			
	Subsidiaries			
	SK environmental protection materials (Yantai) Co., Ltd.	Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.1	Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.2	SK Multi-Utility Co., Ltd.
Guarantor	Hana Bank Yantai Branch	KOOKMIN BANK(China) Limited Guangzhou Branch	BANK of China SHANTOU Branch	
Provision of corporate guarantees or collateral, related party transactions (CNY) [CNY, daily]	180,000,000	130,000,000	40,000,000	

Description of the details of guarantees provided or received for receivables and payables from related party transactions	Facility funds	Facility funds, etc.	Facility funds	SK Gas Payment guarantee for the unpaid fuel costs and related liabilities arising from the LNG supply contract signed with International, PTE., Ltd.

Previous period

	All related parties			
	Related parties			
	Subsidiaries			
	SK environmental protection materials (Yantai) Co., Ltd.	Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.1	Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.2	SK Multi-Utility Co., Ltd.
Guarantor	Hana Bank Yantai Branch	Hana Bank Guangzhou Branch		
Provision of corporate guarantees or collateral, related party transactions (CNY) [CNY, daily]	150,000,000	60,000,000		
Description of the details of guarantees provided or received for receivables and payables from related party transactions	Facility funds	Facility funds		Payment guarantee for the unpaid fuel costs and related liabilities arising from the LNG supply contract signed with SK Gas International, PTE., Ltd.

The Company has entered into agreements for shareholder loans in lieu of capital and collateral provisions for the project financing of its subsidiary, SK Multi-Utility Co., Ltd. (refer to Note 24).

Compensation for key management personnel

Current period

(Unit: KRW one thousand)

	Disclosure amount
Compensation for key management personnel, Short-term employee benefits	2,635,490
Compensation for key management personnel, Retirement benefits	746,729
Compensation for key management personnel	3,382,219

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Compensation for key management personnel, Short-term employee benefits	3,397,040
Compensation for key management personnel, Retirement benefits	600,965
Compensation for key management personnel	3,998,005

The key senior management of the Company consist of the directors who are registered executives and the members of the Audit Committee.

26. Equity - Capital Stock and Capital Surplus

Disclosure of the classification of shares

Current period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks
Authorized number of shares (unit: shares)	40,000,000	10,000,000
Par value per share (unit: KRW/share)	5,000	5,000
Total number of issued shares (unit: shares)	17,253,783	2,115,429
Capital	88,216,360	10,577,145

Previous period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks
Authorized number of shares (unit: shares)	40,000,000	10,000,000
Par value per share (unit: KRW/share)	5,000	5,000
Total number of issued shares (unit: shares)	17,253,783	2,115,429
Capital	88,216,360	10,577,145

(Note 1) Total number of issued shares / Share capital: During the previous period, the Company has retired 389,489 of its own shares, resulting in a mismatch between the total par value of the controlling company's capital stock and the total par value of issued shares as of the end of the current period.

Details of capital surplus

Current period

(Unit: KRW one thousand)

		Disclosure amount
Capital surplus		157,915,326
Capital surplus	Paid-in capital in excess of par value	237,858,538
	Gains from merger	32,942,217
	Losses from merger	(112,885,429)

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Capital surplus		157,915,326
Capital surplus	Paid-in capital in excess of par value	237,858,538

	Gains from merger	32,942,217
	Losses from merger	(112,885,429)

26. Equity – Other Components of Equity

Components of other equity

Current period

(Unit: KRW one thousand)

		Disclosure amount
Components of other equity		(12,644,104)
Components of other equity	Treasury stocks	(8,921,442)
	Stock options	1,532,449
	Other capital adjustments	(5,255,111)

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Components of other equity		(12,644,104)
Components of other equity	Treasury stocks	(8,921,442)
	Stock options	1,532,449
	Other capital adjustments	(5,255,111)

(Note 1) Treasury shares: The Company acquired the shares of the Company at the market price following the acquisition of fractional shares and the exercise of appraisal rights by the shareholders.

Disclosure of treasury shares

	Common stocks	Preferred stocks
The number of shares owned by the company, its subsidiaries, or affiliates out of the total issued shares	30,857	148,133

26. Equity – Share Options

Disclosure of the terms of share-based payment agreements

(Unit: KRW)

	Share-based payment agreements														Share-based payment agreements Total	
	2018.03.06			2018.03.26 (1st)			2018.03.26 (2nd)			2019.03.25 (1st)			2019.03.25 (2nd)			
	Scope		Total scope	Scope		Total scope	Scope		Total scope	Scope		Total scope	Scope			Total scope
	Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		Sub-scope	Upper scope		
Share-based payment agreements grant date			2018.03.06			2018.03.26			2018.03.26			2019.03.25			2019.03.25	
Number of shares to be issued under options and stock sale agreements (unit: shares)			29,988			22,491			22,492			22,491			22,492	

Exercise period, Stock options	2020-03-07	2025-03-06		2020-03-27	2025-03-26		2021-03-27	2025-03-26		2021-03-26	2026-03-25		2022-03-26	2026-03-25		
Exercise price, Granted stock options (Unit: KRW, stocks)			71,785			72,009			77,724			47,749			51,517	
Weighted average fair value as of the measurement date Granted stock options (Unit: KRW, stocks)			15,864			16,226			13,717			9,184			7,856	
Weighted average remaining expiration period of outstanding stock options																7 months

(Note 1) Number of shares to be issued under option and stock sale agreements / Exercise price, granted stock options / Weighted average fair value as of the measurement date, granted stock options: Due to a stock split prior to the previous period, the number of shares to be issued and the exercise price were adjusted, and the fair value on the grant date was revised accordingly.

Disclosure of the fair value of goods or services received, indirectly measured based on the fair value of stock options granted during the accounting period.

(Unit: KRW)

	Share-based payment agreements				
	Portion granted on 2018.03.06	Portion granted on 2018.03.26 (Primary)	Portion granted on 2018.03.26 (Secondary)	Portion granted on 2019.03.25 (Primary)	Portion granted on 2019.03.25 (Secondary)
Valuation method	Binomial model				
Grant date of the share- based payment agreement	2018.03.06	2018.03.26	2018.03.26	2019.03.25	2019.03.25
Weighted average stock price, Granted stock options	69,667	70,000	70,000	45,267	45,267
Exercise price, Granted stock options	71,785	72,009	77,724	47,749	51,517
Expected stock price volatility, Granted stock options	0.1507	0.1575	0.1575	0.1837	0.1837
Risk-free interest rate, Stock options	0.0266	0.0257	0.0257	0.0192	0.0192

(Note 1) Weighted average stock price, granted stock options / Exercise price, granted stock options: Following the capital increase without consideration prior to the previous period, the number of shares to be issued and the exercise price have been adjusted, and the share price on the date of grant has been adjusted and recorded.

Disclosure of the number of stock options and the weighted average exercise price

(Unit: KRW one thousand)

	2018.03.06	2018.03.26 (1st)	2018.03.26 (2nd)	2019.03.25 (1st)	2019.03.25 (2nd)	Share-based payment agreements Total
Grant date of the share- based payment agreement	2018.03.06	2018.03.26	2018.03.26	2019.03.25	2019.03.25	

Number of outstanding stock options under the share-based payment agreement at the beginning of the period (unit: shares)	29,988	22,491	22,492	22,491	22,492	119,954
Number of stock options changed under the share-based payment agreement (unit: shares)	0	0	0	0	0	0
Number of outstanding stock options under the share-based payment agreement at the end of the period (unit: shares)	29,988	22,491	22,492	22,491	22,492	119,954
Beginning stock options	475,721	364,940	308,530	206,567	176,691	1,532,449
Changed stock options under the share-based payment agreement	0	0	0	0	0	0
Ending stock options	475,721	364,940	308,530	206,567	176,691	1,532,449

(Note 1) Due to a stock split prior to the previous period, the number of shares to be issued was adjusted.

26. Equity – Accumulated Other Comprehensive Income

There are no changes in the accumulated other comprehensive income for the current period.

26. Equity - Retained Earnings

Retained earnings

Current period

(Unit: KRW one thousand)

		Disclosure amount
Retained earnings (losses)		933,317,612
Retained earnings (losses)	Earned surplus reserve;	13,765,704
	Unappropriated retained earnings (unsettled deficit)	919,551,908

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Retained earnings (losses)		879,822,036
Retained earnings (losses)	Earned surplus reserve;	12,508,504
	Unappropriated retained earnings (unsettled deficit)	867,313,532

(Note 1) Legal reserve: In accordance with the provisions of the Commercial Act, the Company is required to accumulate over 10% of the dividends in money as earnings surplus reserve for each settlement period until they reach 50% of the capital, and this reserve can only be used to compensate for losses and for capitalization.

Statement of appropriation of retained earnings

Current period

(Unit: KRW one thousand)

		Disclosure amount

Unappropriated retained earnings		919,551,908
Unappropriated retained earnings	Earned surplus carried forward to next fiscal year.	861,160,411
	Interim dividend	(7,676,088)
	Net income (loss)	70,167,270
	Remeasurement gains and losses of the defined benefit plan (After-tax other comprehensive income)	(4,099,685)
Amount of retained earnings disposed of		(16,707,743)
Amount of retained earnings disposed of	Dividends proposed or declared before the financial statement approval date, but not recognized as distributions to owners within the period	(14,491,031)
	Disposal of legal reserves before appropriation	(2,216,712)
Unappropriated retained earnings carried forward		902,844,165

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Unappropriated retained earnings		867,313,532
Unappropriated retained earnings	Earned surplus carried forward to next fiscal year.	841,817,207
	Interim dividend	(7,676,090)
	Net income (loss)	41,753,736
	Remeasurement gains and losses of the defined benefit plan (After-tax other comprehensive income)	(8,581,321)
Amount of retained earnings disposed of		(6,153,121)
Amount of retained earnings disposed of	Dividends proposed or declared before the financial statement approval date, but not recognized as distributions to owners within the period	(4,895,920)
	Disposal of legal reserves before appropriation	(1,257,201)
Unappropriated retained earnings carried forward		861,160,411

The scheduled date for the disposition of the current year's retained earnings is March 26, 2025, and the date of final disposition of the previous year's retained earnings was March 26, 2024.

26. Equity - Dividends

Disclosure of dividends

Current period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks
Number of shares to receive dividends (unit: shares)	17,222,926	1,967,296
Dividend per common stock (unit: KRW/share)	750	
Dividend per preferred stock (unit: KRW/share)		800

Dividend rate per common stock	0.15	
Dividend rate per preferred stock		0.16
Dividends proposed or declared before the financial statement approval date, but not recognized as distributions to owners within the period	12,917,195	1,573,836

Previous period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks
Number of shares to receive dividends (unit: shares)	17,222,926	1,967,296
Dividend per common stock (unit: KRW/share)	250	
Dividend per preferred stock (unit: KRW/share)		300
Dividend rate per common stock	0.05	
Dividend rate per preferred stock		0.06
Dividends proposed or declared before the financial statement approval date, but not recognized as distributions to owners within the period	4,305,731	590,189

Disclosure of dividend payments

(Unit: KRW one thousand)

	Annual dividend	Interim dividend
Dividends recognized as distributions to owners	4,895,920	7,676,088

27. Sales by Division

The Company has 2 reporting divisions, which are strategic operating units. The strategic business units provide different products and services, and operate separately since the technologies and marketing strategies required for each business unit are different. The chief operating decision maker reviews the internal reporting data for each strategic business unit at least on a monthly basis.

Disclosure of business segments

Current period

(Unit: KRW one thousand)

	Division			Segment total
	Reporting segment			
	Green Chemicals Biz.	Life Science Biz.	Other segments	
Types of products and services through which each reporting segment generates revenue	PET resin, DMT, high-performance PETG resin, polyester adhesive	Pharmaceuticals, medical devices, etc.		

pharmaceuticals, medical devices, etc.				
Revenue (Sales)	970,671,819	357,230,091	12,625,482	1,340,527,392
Operating profit (loss)	86,166,056	19,152,770	5,773,421	111,092,247
Depreciation and amortization expenses	44,025,638	7,130,649	7,963,735	59,120,022
Assets	997,673,638	254,349,313	730,282,478	1,982,305,429
Non-current assets excluding the acquisition amount of rights arising from financial instruments, deferred corporate tax assets, retirement benefit assets, and insurance contracts	544,126,144	96,396,199	112,537,832	753,060,175

Previous period

(Unit: KRW one thousand)

	Division			Segment total
	Reporting segment			
	Green Chemicals Biz.	Life Science Biz.	Other segments	
Description of the types of products and services through which each reporting segment generates revenue	PET resin, DMT, high-performance PETG resin, polyester adhesive	Pharmaceuticals, medical devices, etc.		
Revenue (Sales)	844,118,970	376,048,766	12,757,905	1,232,925,641
Operating profit (loss)	53,369,570	31,519,090	546,617	85,435,277
Depreciation and amortization expenses	42,394,175	6,576,897	6,841,855	55,812,927
Assets	929,308,555	240,359,529	786,050,076	1,955,718,160
Non-current assets excluding the acquisition amount of rights arising from financial instruments, deferred corporate tax assets, retirement benefit assets, and insurance contracts	536,988,285	87,641,238	118,033,901	742,663,424

(Note 1) Depreciation and amortization expenses: It is the sum of the depreciation for tangible assets, depreciation for investment real estate properties, depreciation for right-of-use assets, and the amortization cost for intangible assets.

(Note 2) Non-current assets excluding the acquisition amount of financial instruments, deferred tax assets, retirement benefit assets, and rights arising from insurance contracts: Included are the tangible assets, intangible assets, right-of-use assets, and the investment real estate properties.

Most liabilities are not managed by reporting segment, and, therefore, are not disclosed by reporting segment.

28. Profits from Contracts with Customers

Disclosure of products and services

Current period

(Unit: KRW one thousand)

	Division														
	Reporting segment										Other segments				
	Green Chemicals Biz					Life Science Biz									
	Products and services				Total of products and services	Products and services				Total of products and services	Products and services				Total of products and services
	Product	Goods	Services	Others		Product	Goods	Services	Others		Product	Goods	Services	Others	
Revenue from contracts	895,672,730	27,305,390	47,958,204	(284,500)	970,671,818	205,321,482	146,124,335	1,833,795	3,950,479	357,230,091	0	0	6,929,511	5,695,971	12,625,442

Previous period

(Unit: KRW one thousand)

	Division														
	Reporting segment										Other segments				
	Green Chemicals Biz					Life Science Biz									
	Products and services				Total of products and services	Products and services				Total of products and services	Products and services				Total of products and services
	Product	Goods	Services	Others		Product	Goods	Services	Others		Product	Goods	Services	Others	
Revenue from contracts	814,748,458	5,694,303	25,516,793	(1,840,585)	844,118,970	205,953,111	163,798,062	1,835,429	4,452,164	376,048,769	0	0	7,594,841	5,173,064	12,757,905

Disclosure of products and services_Total

Current period

(Unit: KRW one thousand)

	Product	Goods	Services	Others	Total of products and services
Revenue from contracts	1,100,994,212	173,429,725	56,721,510	9,381,945	1,340,527,392

Previous period

(Unit: KRW one thousand)

	Product	Goods	Services	Others	Total of products and services
Revenue from contracts	1,020,711,570	169,492,365	34,937,063	7,784,643	1,232,925,641

Disclosure of regions

Current period
(thousand)

(Unit: KRW one thousand)

Division																								
Reporting segment																								
Green Chemicals Biz								Life Science Biz								Other segments								
Region							Total by region	Region							Total by region	Region							Total by region	
Foreign country								Foreign country								Foreign country								
Country of the company's headquarters	China	Japan	Asia	United States of America	Europe	Other countries		Country of the company's headquarters	China	Japan	Asia	United States of America	Europe	Other countries		Country of the company's headquarters	China	Japan	Asia	United States of America	Europe	Other countries		
Revenue from contracts with customers	204,346,836	207,950,689	122,208,456	124,050,727	115,847,682	170,418,081	25,949,348	970,671,819	321,129,766	7,764,984	0	378,837	2,729,929	24,503,336	723,240	357,230,091	11,765,883	859,600	0	0	0	0	0	12,625,482

Previous period

(Unit: KRW one thousand)

Division																								
Reporting segment																								
Green Chemicals Biz											Life Science Biz					Other segments								
Region							Total by region	Region						Total by region	Region						Total by region			
Country of the company's headquarters	Foreign country							Country of the company's headquarters	Foreign country						Total by region	Country of the company's headquarters	Foreign country							
	China	Japan	Asia	United States of America	Europe	Other countries			China	Japan	Asia	United States of America	Europe				Other countries	China	Japan	Asia		United States of America	Europe	Other countries
Revenue	191,661.41	219,887.50	92,056.762	90,889.470	75,279.736	136,616.74	37,727.313	844,118.97	343,682.44	0	0	345,519	2,451,648	19,667,743	9,901,409	376,048.76	12,088,967	668,938	0	0	0	0	0	12,757,905

	Goods or services transferred at a point in time	Goods or services transferred over time	Total timing of transfer of goods or services
Revenue from the contracts with customers	1,196,007,778	36,917,863	1,232,925,641

Meanwhile, there are no customers accounting for more than 10% of sales during the current period.

29. Operating Expenses - Expenses by Nature

Disclosure of classification of expenses by nature

Current period

(Unit: KRW one thousand)

	Disclosure amount
Decrease (increase) in finished goods and work in progress	(26,504,045)
Usage of raw materials and consumables	526,232,014
Cost of merchandise sold	152,385,826
Depreciation and amortization expenses	59,120,022
Labor cost	178,741,643
Logistics cost	71,607,227
Fees and expenses	49,321,124
Selling and marketing expenses	18,918,478
Other expenses	199,612,856
Total expenses by nature	1,229,435,145

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Decrease (increase) in finished goods and work in progress	26,490,204
Usage of raw materials and consumables	442,051,428
Cost of merchandise sold	153,573,405
Depreciation and amortization expenses	55,812,928
Labor cost	153,112,315
Logistics cost	49,268,650
Fees and expenses	46,523,485
Selling and marketing expenses	19,257,195
Other expenses	201,400,755
Total expenses by nature	1,147,490,365

(Note 1) Depreciation and amortization expenses: It is the sum of the depreciation for tangible assets, depreciation for investment real estate properties, depreciation for right-of-use assets, and the amortization cost for intangible assets.

29. Operating expenses - Selling and Administrative Expenses

Disclosure of selling and administrative expenses

Current period

(Unit: KRW one thousand)

		Disclosure amount
Selling and administrative expenses		221,714,892
Selling and administrative expenses	Salaries and general and administrative expenses	69,560,087
	Retirement benefits and selling, general, and administrative expenses	6,838,606
	Welfare expenses and selling, general, and administrative expenses	13,621,784
	Travel and transportation expenses, and selling, general, and administrative expenses	6,886,926
	Communication expenses and selling, general, and administrative expenses	571,623
	Utilities expenses and selling, general, and administrative expenses	918,699
	Taxes and dues, and selling, general, and administrative expenses	702,853
	Rental expenses and selling, general, and administrative expenses	787,467
	Depreciation expenses and selling, general, and administrative expenses	3,958,559
	Repair expenses and selling, general, and administrative expenses	456,406
	Insurance premiums and selling, general, and administrative expenses	1,181,725
	Entertainment expenses and selling, general, and administrative expenses	1,254,209
	Supplies expenses and selling, general, and administrative expenses	958,948
	Vehicle maintenance expenses and selling, general, and administrative expenses	641,036
	Training expenses and selling, general, and administrative expenses	3,272,077
	Printing and publication expenses and selling, general, and administrative expenses	109,025
	Commission expenses and selling, general, and administrative expenses	29,320,685
	Research expenses and selling, general, and administrative expenses	45,148,790
	Advertising and promotion expenses and selling, general, and administrative expenses	16,898,938
	Sales commission expenses and selling, general, and administrative expenses	7,116,888
	Sales promotion expenses and selling, general, and administrative expenses	1,188,952
	Sample expenses and selling, general, and administrative expenses	796,214
	Packaging expenses and selling, general, and administrative expenses	4,659,497
	Bad debt expense (reversal of allowance for doubtful accounts) and selling, general, and administrative expenses	55,236
	Meeting expenses and selling, general, and administrative expenses	510,068
	Amortization of intangible assets and selling, general, and administrative expenses	4,298,455
	Other selling and administrative expenses	1,139

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Selling and administrative expenses		200,386,438
Selling and administrative expenses	Salaries and general and administrative expenses	58,348,871
	Retirement benefits and selling, general, and administrative expenses	4,817,319
	Welfare expenses and selling, general, and administrative expenses	11,613,669
	Travel and transportation expenses, and selling, general, and administrative expenses	6,507,531
	Communication expenses and selling, general, and administrative expenses	545,982
	Utilities expenses and selling, general, and administrative expenses	764,003

	Taxes and dues, and selling, general, and administrative expenses	614,757
	Rental expenses and selling, general, and administrative expenses	678,373
	Depreciation expenses and selling, general, and administrative expenses	3,356,702
	Repair expenses and selling, general, and administrative expenses	631,040
	Insurance premiums and selling, general, and administrative expenses	1,226,049
	Entertainment expenses and selling, general, and administrative expenses	1,232,824
	Supplies expenses and selling, general, and administrative expenses	652,477
	Vehicle maintenance expenses and selling, general, and administrative expenses	568,995
	Training expenses and selling, general, and administrative expenses	3,443,285
	Printing and publication expenses and selling, general, and administrative expenses	115,616
	Commission expenses and selling, general, and administrative expenses	27,796,541
	Research expenses and selling, general, and administrative expenses	44,169,825
	Advertising and promotion expenses and selling, general, and administrative expenses	18,055,840
	Sales commission expenses and selling, general, and administrative expenses	5,729,503
	Sales promotion expenses and selling, general, and administrative expenses	325,208
	Sample expenses and selling, general, and administrative expenses	833,614
	Packaging expenses and selling, general, and administrative expenses	4,225,365
	Bad debt expense (reversal of allowance for doubtful accounts) and selling, general, and administrative expenses	(95,629)
	Meeting expenses and selling, general, and administrative expenses	508,677
	Amortization of intangible assets and selling, general, and administrative expenses	3,717,085
	Other selling and administrative expenses	2,916

30. Non-Operating Income and Expenses – Other Income and Expenses

Other revenue and expenses

Current period

(Unit: KRW one thousand)

		Disclosure amount
Other revenue		14,163,322
Other revenue	Gain on disposal of tangible assets	16,753
	Gain on disposal of right-of-use assets	3,726
	Gain on disposal of stocks invested in subsidiaries	0
	Gains on disposal of assets held for sale	9,354,717
	Reversal of allowance for other bad debts	0
	Miscellaneous gains	4,788,126
Other losses		23,352,413
Other losses	Losses on disposal of tangible assets	534,764
	Losses on disposal of intangible assets	38,417
	Impairment losses on tangible assets	3,873,692
	Loss on disposal of trade receivables	485,111

	Impairment loss on investment in affiliates	3,025,078
	Contributions	1,483,919
	Other bad debt expenses	218,904
	Miscellaneous loss	13,692,528

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Other revenue		23,667,872
Other revenue	Gain on disposal of tangible assets	15,115
	Gain on disposal of right-of-use assets	2,619
	Gain on disposal of stocks invested in subsidiaries	19,063,083
	Gains on disposal of assets held for sale	0
	Reversal of allowance for other bad debts	408,790
	Miscellaneous gains	4,178,265
Other losses		41,680,757
Other losses	Losses on disposal of tangible assets	210,556
	Losses on disposal of intangible assets	58,861
	Impairment losses on tangible assets	6,936,627
	Loss on disposal of trade receivables	134,602
	Impairment loss on investment in affiliates	4,674,672
	Contributions	1,792,366
	Other bad debt expenses	0
	Miscellaneous loss	27,873,073

30. Non-Operating Income and Expenses – Financial Income and Costs

Financial income and costs

Current period

(Unit: KRW one thousand)

		Disclosure amount
Financial income		51,149,934
Financial income	Interest revenue (financial income)	10,081,735
	Gains on fair value measurement of financial assets recognized in profit or loss (financial income)	7,042,765
	Gains on disposal of financial assets recognized in profit or loss (financial income)	0
	Dividend income (financial income)	1,790,000
	Foreign exchange gains (financial income)	18,026,806
	Foreign currency translation gains (financial income)	7,660,816
	Gains on derivative valuation (financial income)	3,729,220
	Gains on derivative transactions (financial income)	2,818,592
Financial cost		64,470,926

Financial cost	Interest expense (financial cost)	32,276,441
	Losses on fair value measurement of financial assets recognized in profit or loss (financial cost)	5,731,034
	Foreign exchange losses (financial cost)	11,686,779
	Foreign currency translation losses (financial cost)	5,755,586
	Losses on derivative valuation (financial cost)	3,960,792
	Losses on derivative transactions (financial cost)	5,060,294

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Financial income		39,204,884
Financial income	Interest revenue (financial income)	5,520,538
	Gains on fair value measurement of financial assets recognized in profit or loss (financial income)	1,587,267
	Gains on disposal of financial assets recognized in profit or loss (financial income)	2,052,645
	Dividend income (financial income)	2,190,000
	Foreign exchange gains (financial income)	17,547,643
	Foreign currency translation gains (financial income)	2,189,281
	Gains on derivative valuation (financial income)	4,034,012
	Gains on derivative transactions (financial income)	4,083,498
Financial cost		50,606,822
Financial cost	Interest expense (financial cost)	27,275,283
	Losses on fair value measurement of financial assets recognized in profit or loss (financial cost)	385,439
	Foreign exchange losses (financial cost)	14,986,074
	Foreign currency translation losses (financial cost)	2,472,250
	Losses on derivative valuation (financial cost)	81,934
	Losses on derivative transactions (financial cost)	5,405,842

31. Corporate Tax Expense

Key components of corporate tax expense (income)

Current period

(Unit: KRW one thousand)

	Disclosure amount
Current corporate tax expense (benefit)	20,592,940
Adjustment of current corporate tax for prior periods	(5,364,947)
Deferred corporate tax expense (income) due to the origination and reversal of temporary differences	1,955,397

Current and deferred corporate taxes related to items directly charged or credited to equity	1,231,505
Corporate tax expense (income)	18,414,894

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Current corporate tax expense (benefit)	8,947,517
Adjustment of current corporate tax for prior periods	6,321,806
Deferred corporate tax expense (income) due to the origination and reversal of temporary differences	(3,583,426)
Current and deferred corporate taxes related to items directly charged or credited to equity	2,580,822
Corporate tax expense (income)	14,266,719

Current and deferred corporate taxes related to items directly charged or credited to equity

Current period

(Unit: KRW one thousand)

	Disclosure amount
Corporate tax related to remeasurements of defined benefit plans included in other comprehensive income	1,231,505

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Corporate tax related to remeasurements of defined benefit plans included in other comprehensive income	2,580,822

Adjustments to the amount calculated by applying the tax rate to accounting profit

Current period

(Unit: KRW one thousand)

	Disclosure amount
Accounting profit	88,582,164
Corporate tax expense (income) based on the applicable tax rate	20,000,480
Corporate tax effect of non-taxable income	(319,456)
Corporate tax effect of expenses that are not deductible in the determination of taxable income (taxable loss for tax purposes)	1,225,744
Benefits arising from previously unrecognized tax losses, tax credits, or temporary differences from prior periods used to reduce current corporate tax expense	(1,429,813)
Temporary differences not recognized as deferred corporate tax	0
Adjustments recognized for the current period for the current income tax for the previous periods	(5,364,947)

Other tax effects related to the reconciliation between accounting profit and corporate tax expense (income)	4,302,887
Total corporate tax expense (income)	18,414,894
Effective tax rate	0.2079

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Accounting profit	56,020,455
Corporate tax expense (income) based on the applicable tax rate	12,478,725
Corporate tax effect of non-taxable income	(406,353)
Corporate tax effect of expenses that are not deductible in the determination of taxable income (taxable loss for tax purposes)	323,119
Benefits arising from previously unrecognized tax losses, tax credits, or temporary differences from prior periods used to reduce current corporate tax expense	(2,230,545)
Temporary differences not recognized as deferred corporate tax	(4,352)
Adjustments recognized for the current period for the current income tax for the previous periods	3,835,006
Other tax effects related to the reconciliation between accounting profit and corporate tax expense (income)	271,119
Total corporate tax expense (income)	14,266,719
Effective tax rate	0.2547

(Note 1) Corporate tax expense (income) based on the applicable tax rate: Considered for the applicable tax rate are the corporate tax rate (9% for KRW 200 million or less; 19% for KRW 200 million to KRW 20 billion; 21% for KRW 20 billion to KRW 300 billion) and the local income tax rate for corporate tax.

Disclosure of temporary differences, unused tax losses, and unused tax credits

Current period

(Unit: KRW one thousand)

	Government subsidies	Accrued revenue	Accrued expenses	Inventory valuation Provisioning liabilities	Tangible assets	Intangible assets Intangible assets	Securities	Right-of-use assets	Lease liabilities	Compressor warranty provision	Derivatives	Defined benefit obligations (assets)	Cumulative impairment losses	Provisioning liabilities	Contract liabilities	Share-based compensation Commitments	Carried-forward contributions	Unused tax credits	Other Temporary differences	Temporary differences, Unused tax losses and Unused tax credits Total
Beginning deferred corporate tax liabilities (assets)	(2,286,036)	231,694	(5,517,355)	(1,512,071)	9,261,046	(508,593)	(1,898,337)	413,561	(422,063)	5,836,265	1,167,884	0	(1,954,360)	(3,920,135)	(462,099)	(353,997)	(131,973)	(13,384)	(2,495,862)	(4,565,813)
Deferred corporate tax expense (income) Income tax expense (income)	173,289	(147,314)	(1,636,292)	(107,752)	(647,020)	0	(206,970)	36,665	(38,272)	(2,418)	762,336	2,775,777	958,950	2,469,680	292,045	0	127,628	(1,523)	(1,621,906)	3,186,903
Deferred corporate tax related to items directly charged or credited Deferred income tax	0	0	0	0	0	0	0	0	0	0	0	(1,231,505)	0	0	0	0	0	0	0	(1,231,505)
Ending deferred corporate tax liabilities (assets)	(2,112,747)	84,380	(7,153,647)	(1,619,823)	8,614,026	(508,593)	(2,105,307)	450,226	(460,335)	5,833,848	1,930,220	1,544,272	(995,410)	(1,450,455)	(170,054)	(353,997)	(4,345)	(14,906)	(4,117,768)	(2,610,415)

Previous period

(Unit: KRW one thousand)

	Government subsidies	Accrued revenue	Accrued expenses	Inventory valuation Provisioning liabilities	Tangible assets	Intangible assets Intangible assets	Securities	Right-of-use assets	Lease liabilities	Compressor warranty provision	Derivatives	Defined benefit obligations (assets)	Cumulative impairment losses	Provisioning liabilities	Contract liabilities	Share-based compensation Commitments	Carried-forward contributions	Unused tax credits	Other Temporary differences	Temporary differences, Unused tax losses and Unused tax credits Total
Beginning deferred corporate tax liabilities (assets)	(2,322,026)	118,056	(6,929,606)	(1,304,734)	11,727,331	(510,795)	(521,192)	408,241	(413,460)	5,862,260	287,126	0	(2,009,861)	(4,483,794)	(248,868)	(355,529)	0	(12,870)	(272,669)	(982,390)
Deferred corporate tax expense (income) Income tax expense (income)	35,989	113,638	1,412,251	(207,336)	(2,466,285)	2,202	(1,377,145)	5,320	(8,603)	(25,995)	880,758	2,580,822	55,501	563,659	(213,231)	1,532	(131,973)	(514)	(2,223,194)	(1,002,604)
Deferred corporate tax related to items directly charged or credited Deferred income tax	0	0	0	0	0	0	0	0	0	0	0	(2,580,822)	0	0	0	0	0	0	0	(2,580,822)
Ending deferred corporate tax liabilities (assets)	(2,286,036)	231,694	(5,517,355)	(1,512,071)	9,261,046	(508,593)	(1,898,337)	413,561	(422,063)	5,836,265	1,167,884	0	(1,954,360)	(3,920,135)	(462,099)	(353,997)	(131,973)	(13,384)	(2,495,862)	(4,565,813)

The possibility of future realization for the deferred income tax assets depends on various factors such as the Company's ability to generate taxable income during the period in which the temporary differences are realized, and the overall economic environment and outlook for the industry. The Company regularly reviews such matters and has recognized the temporary differences to be deducted that are determined to be realizable as the deferred income tax assets as of the end of the reporting period.

Disclosure of temporary differences, etc., that have not been recognized as deferred corporate tax assets

Current period

(Unit: KRW one thousand)

	Disclosure amount
Tax effects arising from temporary differences, unused tax losses, unused tax credits, etc., that have not been recognized as deferred corporate tax assets	48,962,820

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Tax effects arising from temporary differences, unused tax losses, unused tax credits, etc., that have not been recognized as deferred corporate tax assets	52,343,864

International tax reform - Pillar 2 model rules

The company applies the temporary exception provisions for deferred corporate tax under Corporate Accounting Standard 1012 and does not recognize deferred corporate tax assets and liabilities related to Pillar 2 legislation. Additionally, information related to deferred corporate tax is not disclosed.

Under the global minimum tax legislation, the company is required to pay additional tax in South Korea on the profits of subsidiaries taxed at an effective tax rate of less than 15%. Based on the current financial statements, the Company reviewed whether the transition period exemption requirements under Article 80 of the Adjustment of International Taxes Act are met in each country where the Company's subsidiaries are located. All countries meet these requirements. For countries that meet the transition exemption requirements, no additional global minimum tax is considered applicable for the current period in those countries. Therefore, the company's current corporate tax expense does not include

any corporate tax expense related to Pillar 2. The estimated annual effective tax rate may change due to various factors, including tax benefits received by subsidiaries, adjustments to accounting net income for calculating global minimum tax income as required by subsequent interim period laws, and other related factors. As a result, the current corporate tax expense related to Pillar 2 is exposed to estimated uncertainty.

32. Earnings per Share (EPS)

Earnings per share (EPS)

Current period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks	Total number of shares
Net income (loss)			70,167,270
Adjustment of profit (loss) for preferred share dividends			(2,360,755)
Loss (profit) attributable to participatory equity instruments other than common shares used in the calculation of basic earnings (loss) per share			(4,920,762)
Net profit (loss) attributable to the common shares of the parent)	62,885,753		
Net profit (loss) attributable to the preferred shares of the parent)		7,281,517	
Weighted average number of common stocks outstanding (unit: shares)	17,222,926		
Weighted average number of preferred stocks outstanding (unit: shares)		1,967,296	
Earnings (loss) per common stock (Unit: KRW, stocks)	3,651		3,651
Basic earnings (loss) per preferred stock (unit: KRW/share)		3,701	3,701
Increase (decrease) in earnings (loss) reflecting the dilutive effect of potential common share conversions	0		
Net profit (loss) attributable to the common stocks of the parent company, including the dilutive effect	62,885,753		
Potential effect of stock options on the number of common stocks outstanding (unit: shares)	4,986		
Adjusted weighted average number of common stocks outstanding (unit: shares)	17,227,912		

Diluted earnings (loss) per share (Unit: KRW, stocks)	3,650		3,650

Previous period

(Unit: KRW one thousand)

	Common stocks	Preferred stocks	Total number of shares
Net income (loss)			41,753,736
Adjustment of profit (loss) for preferred share dividends			(1,377,107)
Loss (profit) attributable to participatory equity instruments other than common shares used in the calculation of basic earnings (loss) per share			(2,991,581)
Net profit (loss) attributable to the common shares of the parent	37,385,048		
Net profit (loss) attributable to the preferred shares of the parent		4,368,688	
Weighted average number of common stocks outstanding (unit: shares)	17,222,926		
Weighted average number of preferred stocks outstanding (unit: shares)		1,967,296	
Earnings (loss) per common stock (Unit: KRW, stocks)	2,171		2,171
Basic earnings (loss) per preferred stock (unit: KRW/share)		2,221	2,221
Increase (decrease) in earnings (loss) reflecting the dilutive effect of potential common share conversions	0		
Net profit (loss) attributable to the common stocks of the parent company, including the dilutive effect	37,385,049		
Potential effect of stock options on the number of common stocks outstanding (unit: shares)	13,555		
Adjusted weighted average number of common stocks outstanding (unit: shares)	17,236,481		
Diluted earnings (loss) per share (Unit: KRW, stocks)	2,169		2,169

(Note 1) Basic earnings (loss) per preferred stock: The preferred stocks issued in accordance with the old Commercial Act before its revision in 1997 have the same order of payment as the general common stocks when dividends are paid out or the residual assets are distributed.

Diluted earnings per share are calculated using the adjusted weighted average number of common stocks outstanding, assuming the conversion of all dilutive potential common stocks.

The dilutive potential common shares held by the Company include stock options. The number of stocks resulting from stock options is calculated using the treasury stock method, by comparing the number of stocks that could be acquired at fair value

using the proceeds from the assumed exercise the monetary value of the exercise of the right added to the stock options, and by comparing this number of stocks with the number of stocks to be issued if the stock options are assumed to have been exercised.

Details of the calculation of weighted average number of shares outstanding

Current period

	Common stocks	Preferred stocks
Start date, number of outstanding shares	2024-01-01	2024-01-01
End date, number of outstanding shares	2024-12-31	2024-12-31
Number of days, number of outstanding shares	366	366
Quantity of outstanding shares	17,222,926	1,967,296
Number of weighted average common shares outstanding	17,222,926	
Number of weighted average preferred shares outstanding		1,967,296

Previous period

	Common stocks	Preferred stocks
Start date, number of outstanding shares	2023-01-01	2023-01-01
End date, number of outstanding shares	2023-12-31	2023-12-31
Number of days, number of outstanding shares	365	365
Quantity of outstanding shares	17,222,926	1,967,296
Number of weighted average common shares outstanding	17,222,926	
Number of weighted average preferred shares outstanding		1,967,296

33. Statement of Cash Flows

Cash flows from operating activities

Current period

(Unit: KRW one thousand)

		Disclosure amount
Adjustments for net income reconciliation		106,039,637
Adjustments for net income reconciliation	Adjustment for depreciation expense	50,644,384
	Adjustment for amortization of intangible assets	8,475,638
	Adjustment for retirement benefits	11,762,940
	Adjustment for gain on disposal of right-of-use assets	(3,726)
	Adjustment for gain on disposal of tangible assets	(16,753)
	Adjustment for loss on disposal of tangible assets	534,764
	Adjustment for impairment loss on tangible assets	3,873,692
	Adjustment for loss on disposal of intangible assets	38,417
	Adjustment for interest income	(10,081,735)

	Adjustment for dividend income	(1,790,000)
	Adjustment for gains on disposal of financial assets recognized in profit or loss	0
	Adjustment for gains on valuation of financial assets recognized in profit or loss	(7,042,765)
	Adjustment for losses on valuation of financial assets recognized in profit or loss	5,731,034
	Gain on disposal of stocks invested in subsidiaries	0
	Gains on disposal of assets held for sale and related non-current assets	(9,354,717)
	Impairment loss on investment in affiliates	3,025,078
	Adjustment for gains on derivative valuation	(3,729,220)
	Adjustment for losses on derivative valuation	3,960,792
	Adjustment for interest expense	32,276,441
	Adjustment of corporate tax expense	18,414,894
	Adjustment for inventory valuation loss	466,458
	Adjustment for bad debt expense	55,236
	Reversal of bad debt expense	0
	Other bad debt expenses	218,904
	Reversal of other bad debt expense	0
	Adjustment for foreign currency translation gains	(7,660,816)
	Adjustment for foreign currency translation losses	5,755,586
	Adjustment for loss on disposal of trade receivables	485,111
Changes in assets and liabilities due to operating activities		(129,191,441)
Changes in assets and liabilities due to operating activities	Adjustment for decrease (increase) in trade receivables and other receivables	(48,922,417)
	Decrease (increase) in inventory	(43,930,539)
	Decrease (increase) in other assets	405,226
	Increase (decrease) in trade payables	(7,193,335)
	Increase (decrease) in other liabilities	(9,508,748)
	Increase (decrease) in other current liabilities	(1,027,767)
	Decrease (increase) in the fair value of external fund assets	(15,000,000)
	Affiliates' transfers	319,500
	Increase (decrease) in retirement benefit obligations	2,522,844
	Adjustment due to settlement of derivative transactions	133,915
	Increase (decrease) in current provisions	(12,154,878)
	Increase (decrease) in non-current provisions	0
	Increase (decrease) in contract liabilities	5,164,758

Previous period

(Unit: KRW one thousand)

		Disclosure amount
Adjustments for net income reconciliation		84,769,885
Adjustments for net income reconciliation	Adjustment for depreciation expense	48,556,051
	Adjustment for amortization of intangible assets	7,256,877
	Adjustment for retirement benefits	8,831,690
	Adjustment for gain on disposal of right-of-use assets	(2,619)
	Adjustment for gain on disposal of tangible assets	(15,115)
	Adjustment for loss on disposal of tangible assets	210,556
	Adjustment for impairment loss on tangible assets	6,936,627
	Adjustment for loss on disposal of intangible assets	58,861
	Adjustment for interest income	(5,520,538)
	Adjustment for dividend income	(2,190,000)
	Adjustment for gains on disposal of financial assets recognized in profit or loss	(2,052,645)
	Adjustment for gains on valuation of financial assets recognized in profit or loss	(1,587,267)
	Adjustment for losses on valuation of financial assets recognized in profit or loss	385,439
	Gain on disposal of stocks invested in subsidiaries	(19,063,083)
	Gains on disposal of assets held for sale and related non-current assets	0
	Impairment loss on investment in affiliates	4,674,672
	Adjustment for gains on derivative valuation	(4,034,012)
	Adjustment for losses on derivative valuation	81,934
	Adjustment for interest expense	27,275,283
	Adjustment of corporate tax expense	14,266,719
	Adjustment for inventory valuation loss	921,905
	Adjustment for bad debt expense	
	Reversal of bad debt expense	(95,629)
	Other bad debt expenses	0
	Reversal of other bad debt expense	(408,790)
	Adjustment for foreign currency translation gains	(2,189,281)
	Adjustment for foreign currency translation losses	2,472,250
	Adjustment for loss on disposal of trade receivables	0
Changes in assets and liabilities due to operating activities		55,609,215
Changes in assets and liabilities due to operating activities	Adjustment for decrease (increase) in trade receivables and other receivables	22,744,240
	Decrease (increase) in inventory	11,274,544
	Decrease (increase) in other assets	2,390,038
	Increase (decrease) in trade payables	27,374,738
	Increase (decrease) in other liabilities	(12,932,624)

	Increase (decrease) in other current liabilities	200,236
	Decrease (increase) in the fair value of external fund assets	(15,000,000)
	Affiliates' transfers	(319,912)
	Increase (decrease) in retirement benefit obligations	(85,934)
	Adjustment due to settlement of derivative transactions	823,372
	Increase (decrease) in current provisions	11,013,136
	Increase (decrease) in non-current provisions	5,957,148
	Increase (decrease) in contract liabilities	2,170,233

(Note 1) Adjustment for depreciation expense: This is the depreciation for tangible assets, investment real estate properties, and the right-of-use assets.

Significant transactions that do not involve cash inflows or outflows

Current period

(Unit: KRW one thousand)

	Disclosure amount
Other account reclassifications for construction in progress and machineries in transit	69,325,485
Acquisition of accounts payable for construction in progress	686,077
Transfer from long-term liabilities to current liabilities	103,890,922
Transfer from lease liabilities to current liabilities	1,111,469
Recognition of right-of-use assets and lease liabilities	1,179,815
Write-off of trade receivables and other receivables	3,904,096
Offset of performance guarantee receivables and guarantee deposits payable	2,110,026
Accrued retirement benefits	4,608,858
Reclassification of provisioning liability payables	0
Reclassification of long-term payables to current liabilities	0
Gain on valuation of financial assets measured at fair value through profit or loss	0
Disposal of investment assets in affiliated companies	0

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Other account reclassifications for construction in progress and machineries in transit	15,218,478
Acquisition of accounts payable for construction in progress	1,645,666
Transfer from long-term liabilities to current liabilities	192,160,529
Transfer from lease liabilities to current liabilities	919,303
Recognition of right-of-use assets and lease liabilities	1,125,699
Write-off of trade receivables and other receivables	4,917
Offset of performance guarantee receivables and guarantee deposits payable	0
Accrued retirement benefits	1,426,768
Reclassification of provisioning liability payables	19,326,700

Reclassification of long-term payables to current liabilities	6,836,809
Gain on valuation of financial assets measured at fair value through profit or loss	19,999,995
Disposal of investment assets in affiliated companies	936,934

Disclosure of adjustments to liabilities arising from financing activities

Current period

(Unit: KRW one thousand)

	Classification of asset and liability changes into current and non-current categories								Total classification of asset and liability changes into current and non-current categories
	Assets and liabilities classified as current				Assets and liabilities classified as non-current				
	Liabilities arising from financing activities								
	Short-term borrowings	Long-term borrowings	Debtenture	Lease liabilities	Short-term borrowings	Long-term borrowings	Debtenture	Lease liabilities	
Ending liabilities arising from financing activities	238,989,049	2,550,000	189,855,128	844,576		7,650,000	164,557,091	982,534	605,428,378
Financing cash flows, increase (decrease) in liabilities arising from financing activities	15,796,863	(5,000,010)	(190,000,000)	(902,180)		9,800,000	149,347,607	0	(20,957,720)
Liquidity substitution, increase (decrease) in liabilities arising from financing activities	0	9,116,690	94,774,232	1,111,469		(9,116,690)	(94,774,232)	(1,111,469)	0
Other changes, increase (decrease) in liabilities arising from increase (decrease) in liabilities arising from financing activities	564,348	0	340,640	0		0	274,503	1,067,858	2,247,349
Ending liabilities arising from financing activities	255,350,260	6,666,680	94,970,000	1,053,865		8,333,310	219,404,969	938,923	586,718,007

Previous period

(Unit: KRW one thousand)

	Classification of asset and liability changes into current and non-current categories								Total classification of asset and liability changes into current and non-current categories
	Assets and liabilities classified as current				Assets and liabilities classified as non-current				
	Liabilities arising from financing activities								
	Short-term borrowings	Long-term borrowings	Debenture	Lease liabilities	Short-term borrowings	Long-term borrowings	Debenture	Lease liabilities	
Ending liabilities arising from financing activities	273,359,823	0	65,978,484	838,788		0	154,787,349	943,366	495,907,810
Financing cash flows, increase (decrease) in liabilities arising from financing activities	(33,823,281)	0	(66,000,000)	(913,515)		10,200,000	199,140,850	0	108,604,054
Reclassification of liquidity, increase (decrease) in liabilities arising from financing activities	0	2,550,000	189,610,529	919,303		(2,550,000)	(189,610,529)	(919,303)	0
Other changes, increase (decrease) in liabilities arising from increase (decrease) in liabilities arising from financing activities	(547,493)	0	266,115	0		0	239,421	958,471	916,514
Ending liabilities arising from financing activities	238,989,049	2,550,000	189,855,128	844,576		7,650,000	164,557,091	982,534	605,428,378

(Note 1) Other changes, increase (decrease) in liabilities arising from financing activities: This includes accrued interest on borrowings and foreign exchange revaluation. The Company classifies the payment of interests as cash flows from operating activities.

34. Financial Risk Management Objectives and Policies

The Company's major financial liabilities, excluding derivatives, consist of trade and other payables, borrowings and bonds.

The main purpose of these financial liabilities is to raise funds for the operation of the Company. The Company's major financial assets include trade receivables and the cash and short-term deposits directly derived from operating activities. The Company also has investments in debt and equity instruments and trades derivatives.

The Company is exposed to market risk, credit risk, and liquidity risk. The Company's senior management oversees the management of such risks. All derivative activities for the purpose of risk management are carried out by a team of professionals equipped with the appropriate skills, experiences, and oversight. It is the policy of the Company to avoid conducting any trading of derivatives for speculative purposes.

Market risk

Market risk is the risk related to the fair value or future cash flows of financial instruments fluctuating due to changes in the market prices. Market risk consists of the following three types of risk: interest rate risk, foreign currency risk, and other price risk. Financial instruments affected by market risk include borrowings, bonds, deposits, debt and equity investments, and derivative financial instruments.

The following sensitivity analysis is related to the statement of financial position as of the end of the current and previous periods.

The sensitivity analysis has been prepared based on the designation of a hedging interest rate while the net amount of liabilities, fixed interest rate of liabilities and derivatives, variable interest rate and the ratio of foreign currency financial instruments were all constant as of the end of current period.

This analysis excludes the effect of movements of the market variables on the book values of retirement pensions and other post-retirement liabilities and provisions.

The following assumptions are applied in the sensitivity analysis.

The sensitivity of the relevant income statement is the effect of an assumed change in each market risk. This is based on the financial assets and liabilities held at the end of the current and previous periods, including the effect of hedge accounting.

Disclosure of the nature and extent of risks arising from financial instruments

	Risk				
	Market risk			Credit risk	Liquidity risk
	Interest rate risk	Exchange risk	Other price risks		
Description of exposure to risk	Interest rate risk is the risk that the fair value or future cash flows of financial instruments will fluctuate due to changes in market interest rates.	Foreign exchange risk is the risk that the fair value or future cash flows will fluctuate due to changes in exchange rates. The Company is exposed to exchange rate fluctuation risks primarily related to its operating activities (when revenues or expenses are denominated in foreign currencies) and foreign currency financing. The Company's exposure to foreign exchange risk is primarily related to its operating activities (where sales or expenses are denominated in foreign currencies) and financing in foreign currencies.	Other price risk is the risk that the fair value or future cash flows of financial instruments will fluctuate due to changes in market prices, other than interest rate risk or foreign exchange risk. As the Company does not hold listed equity instruments, there is no impact on profit or loss due to other price fluctuation risks as of the end of the period. Credit risk is the risk of financial loss to the Company arising from the failure of a counterparty to fulfill its obligations. Credit risk arising from the Company's other assets, which consist of cash equivalents, short-term deposits, debt securities, and long-term and short-term loans, results from the default of counterparties.	Furthermore, the Company is not significantly exposed to the risk of price fluctuations of specific instruments. The credit risk arising from the Company's other assets consisting of cash equivalents, short-term deposits, debt securities, and long-term and short-term loans results from, for example, the default of a transaction counterparty. In such an event, the extent of the Company's credit risk exposure will be equal to the maximum book amount of the relevant financial instruments, excluding the derivative financial instruments.	Liquidity risk is the risk of being unable to secure funds to meet all contractual obligations on financial agreements by their maturity.

Description of the objectives, policies, and procedures of risk management	The Company internally measures the interest rate risk based on a 1% point change in the interest rate, and the rate of change above is reflective of the senior management's assessment of the reasonably possible interest rate change risk.	The Company regularly measures the foreign exchange risk of the changes in the KRW exchange rate internally, and in particular, executes and manages currency swap contracts to hedge the risk of exchange rate fluctuations such as foreign currency bonds. The Company regularly measures foreign exchange risk related to KRW exchange rate fluctuations internally and effectively manages this risk through currency futures transactions, resulting in a limited impact on profit or loss.		(1) Trade receivables and other receivables: The Company, as a principle, performs credit verification procedures for all counterparties wishing to engage in credit transactions and conducts business only with counterparties that have sound creditworthiness. In addition, the Company continuously manages trade receivables, other receivables, and contract asset balances by regularly reassessing creditworthiness to ensure that its exposure to bad debt risk remains at a level deemed not significant. As of the end of the reporting period, the Company individually recognizes whether major customers' receivables and contract assets are impaired. In addition, for multiple receivables of small amounts, they review their impairment by including them in the group of financial assets having similar credit risk related characteristics. As of the reporting period end, the maximum exposure to credit risk is the book value of the financial assets described in Note 5. (2) Other Assets Meanwhile, the Company deposits its cash equivalents and short-term financial instruments with financial institutions including Woori Bank. It conducts transactions only with financial institutions having excellent credit ratings, and thus, the credit risk associated with these financial institutions is limited.	The Company manages liquidity risk through strategic planning and liquidity management policies, aligning the maturities of financial assets and liabilities by considering the expected maturities of financial instruments and estimates of the operating cash flows.

Disclosure of interest rate types for financial instruments

Current period

(Unit: KRW one thousand)

	Interest rate types		
	Variable interest rate		
	Financial liabilities, Classification		Financial liabilities, Total classification
	Short-term borrowings	Long-term borrowings	
Borrowings (including bonds)	170,000,000	14,999,990	184,999,990

Previous period

(Unit: KRW one thousand)

	Interest rate types		
	Variable interest rate		
	Financial liabilities, Classification		Financial liabilities, Total classification
	Short-term borrowings	Long-term borrowings	
Borrowings (including bonds)	120,000,000	10,200,000	130,200,000

Sensitivity analysis for each type of market risk exposure as of the reporting period-end, interest rate risk

Current period

(Unit: KRW one thousand)

	Risk		
	Interest rate risk		
	Financial liabilities, Classification		Financial liabilities, Total classification
	Short-term borrowings	Long-term borrowings	
Disclosure of sensitivity analysis for each type of market risk	The impact on profit before tax, assuming all other variables remain constant, with a 1% point change in interest rates	The impact on profit before tax, assuming all other variables remain constant, with a 1% point change in interest rates	
Decrease in profit or loss for the period with an increase in market variables	(1,700,000)	(150,000)	(1,850,000)
Increase in profit or loss for the period with a decrease in market variables	1,700,000	150,000	1,850,000

Previous period

(Unit: KRW one thousand)

	Risk		
	Interest rate risk		
	Financial liabilities, Classification		Financial liabilities, Total classification
	Short-term borrowings	Long-term borrowings	
Disclosure of sensitivity analysis for each type of market risk	The impact on profit before tax, assuming all other variables remain constant, with a 1% point change in interest rates	The impact on profit before tax, assuming all other variables remain constant, with a 1% point change in interest rates	

Decrease in profit or loss for the period with an increase in market variables	(1,200,000)	(102,000)	(1,302,000)
Increase in profit or loss for the period with a decrease in market variables	1,200,000	102,000	1,302,000

Breakdown of foreign currency financial assets by currency

Current period

(Unit: KRW one thousand)

	Risk						Total risk
	Exchange risk						
	Functional currency or reporting currency						
	USD	CNY	EUR	GBP	JPY	MYR	
Foreign currency financial assets, KRW Converted amount	102,795,397	11,119,315	59,483,720	2,678	4,036,668	0	177,437,778

Previous period

(Unit: KRW one thousand)

	Risk						Total risk
	Exchange risk						
	Functional currency or reporting currency						
	USD	CNY	EUR	GBP	JPY	MYR	
Foreign currency financial assets, KRW Converted amount	64,820,923	9,490,916	45,917,344	0	2,954,389	0	123,183,572

Breakdown of foreign currency financial liabilities by currency

Current period

(Unit: KRW one thousand)

	Risk						Total risk
	Exchange risk						
	Functional currency or reporting currency						
	USD	CNY	EUR	GBP	JPY	MYR	
Foreign currency financial liabilities, KRW Converted amount	32,351,017	3,915,507	11,866,738	0	0	0	48,133,262

Previous period

(Unit: KRW one thousand)

	Risk						Total risk
	Exchange risk						
	Functional currency or reporting currency						
	USD	CNY	EUR	GBP	JPY	MYR	
Foreign currency financial liabilities, KRW Converted amount	30,119,925	3,165,449	37,454,728	0	41,754	60,538	70,842,394

Sensitivity analysis for each type of market risk exposure as of the reporting period-end, foreign exchange risk

Current period

(Unit: KRW one thousand)

	Risk						Total risk
	Exchange risk						
	Functional currency or reporting currency						
	USD	CNY	EUR	GBP	JPY	MYR	
Types of market risk	Function for each foreign currency	Function for each foreign currency	Function for each foreign currency	Function for each foreign currency	Function for each foreign currency	Function for each foreign currency	

Disclosure of sensitivity analysis	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	
Increase in profit or loss for the period with an increase in market variables	3,522,219	360,190	2,380,849	134	201,833		6,465,225
Decrease in profit or loss for the period with an increase in market variables							
Increase in profit or loss for the period with a decrease in market variables							
Decrease in profit or loss for the period with a decrease in market variables	(3,522,219)	(360,190)	(2,380,849)	(134)	(201,833)		(6,465,225)

Previous period

(Unit: KRW one thousand)

	Risk						Total risk
	Exchange risk						
	Functional currency or reporting currency						
	USD	CNY	EUR	GBP	JPY	MYR	
Disclosure of sensitivity analysis for each type of market risk	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	The impact on profit before tax for the current and previous periods, assuming a 5% fluctuation in the exchange rate of each foreign currency's functional currency	
Increase in profit or loss for the period with an increase in market variables	1,735,050	316,273	423,131	0	145,632		2,620,086
Decrease in profit or loss for the period with an increase in market variables						(3,027)	(3,027)
Increase in profit or loss for the period with a decrease in market variables						3,027	3,027
Decrease in profit or loss for the period with a decrease in market variables	(1,735,050)	(316,273)	(423,131)	0	(145,632)		(2,620,086)

Disclosure of maturity analysis for non-derivative financial liabilities

Current period

(Unit: KRW one thousand)

		Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years	Total Subtotal
Non-derivative financial liabilities, undiscounted cash flows		550,882,094	133,147,227	103,268,311	0	787,297,632
Non-derivative financial liabilities, undiscounted cash flows	Accounts payable and other payables, undiscounted cash flows	178,799,913	0	0	0	178,799,913
	Bank borrowings, Undiscounted cash flows	265,750,005	6,952,400	1,687,214	0	274,389,619
	Total lease liabilities	1,074,825	807,244	190,764	0	2,072,833
	Other financial liabilities, Undiscounted cash flows	99,226	0	0	0	99,226
	Bonds, Undiscounted cash flows	105,158,125	125,387,583	101,390,333	0	331,936,041

Previous period

(Unit: KRW one thousand)

		Within 1 year	Over 1 year, 2 years or less	Over 2 years, 5 years or less	Over 5 years	Total Subtotal

Non-derivative financial liabilities, undiscounted cash flows		624,256,028	95,620,625	78,093,564	0	797,970,217
Non-derivative financial liabilities, undiscounted cash flows	Accounts payable and other payables, undiscounted cash flows	188,916,425	0	0	0	188,916,425
	Bank borrowings, Undiscounted cash flows	241,539,049	0	7,650,000	0	249,189,049
	Total lease liabilities	862,603	620,625	443,564	0	1,926,792
	Other financial liabilities, Undiscounted cash flows	2,937,951	0	0	0	2,937,951
	Bonds, Undiscounted cash flows	190,000,000	95,000,000	70,000,000	0	355,000,000

(Note 1) Other financial liabilities, Undiscounted cash flows These are deposits taken.

Disclosure of maturity analysis of derivative financial liabilities

Current period

(Unit: KRW one thousand)

	Within 1 year	Total Subtotal
Derivative financial instruments held for trading, undiscounted cash flows	3,960,792	3,960,792

Previous period

(Unit: KRW one thousand)

	Within 1 year	Total Subtotal
Derivative financial instruments held for trading, undiscounted cash flows	81,934	81,934

Capital management

The primary purpose of capital management is to maintain a strong credit rating and sound capital ratios to maintain the Company's operations and maximize shareholder value.

The Company amends its capital structure in line with the changes in the economic environment, and to this end, requires that amendments be made for their dividend policy, capital reduction be made, and the issuance of new shares be considered. Meanwhile, no changes were made to the purposes, policies and the procedures of capital management during the current period.

Disclosure of the company's objectives, policies, and procedures for capital management

Current period

(Unit: KRW one thousand)

	Disclosure amount
Liabilities	804,923,089
Cash and cash equivalents	(177,060,266)
Adjusted liabilities	627,862,823
Equity	1,177,382,339
Debt ratio	0.5333

Previous period

(Unit: KRW one thousand)

	Disclosure amount
Liabilities	831,831,397

Cash and cash equivalents	(245,211,542)
Adjusted liabilities	586,619,855
Equity	1,123,886,764
Debt ratio	0.5220

35. Fair Value Management

Fair value hierarchy

The Company classifies the fair value measurements according to the fair value hierarchy which reflects the significance of the input variables used for the fair value measurement. The levels of the fair value hierarchy are as follows.

Level 1: The unadjusted quoted price in an active market for the same asset or liability accessible at the measurement date, where the quoted price reflects the market's assumptions regarding changes in the economic environment, such as interest rate increases, inflation, and ESG-related risks.

Level 2: Input variables that are directly or indirectly observable for an asset or liability, other than the Level 1 quoted prices

Level 3: Unobservable input variables for assets or liabilities, such as unlisted equity securities and financial instruments that reflect significant unobservable adjustments due to ESG-related risks

Disclosure of fair value measurement of assets

Current period

(Unit: KRW one thousand)

	Total measurement							
	Fair value							
	Financial assets, Classification							
	Derivatives				Long-term investment assets			
	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy
	Fair value hierarchy Level 1	Fair value hierarchy Level 2	Fair value hierarchy Level 3		Fair value hierarchy Level 1	Fair value hierarchy Level 2	Fair value hierarchy Level 3	
Financial assets	0	0	8,784,996	8,784,996	0	0	63,477,944	63,477,944

Previous period

(Unit: KRW one thousand)

	Total measurement							
	Fair value							
	Financial assets, Classification							
	Derivatives				Long-term investment assets			
	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy
	Fair value hierarchy Level 1	Fair value hierarchy Level 2	Fair value hierarchy Level 3		Fair value hierarchy Level 1	Fair value hierarchy Level 2	Fair value hierarchy Level 3	
Financial assets	0	215,849	5,055,776	5,271,625	0	0	60,037,006	60,037,006

Disclosure of fair value measurement of assets_Total

Current period

(Unit: KRW one thousand)

	Total measurement			
	Fair value			
	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy
	Fair value hierarchy Level 1	Fair value hierarchy Level 2	Fair value hierarchy Level 3	
Financial assets	0	0	72,262,940	72,262,940

Previous period

(Unit: KRW one thousand)

	Total measurement			
	Fair value			
	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy
	Fair value hierarchy Level 1	Fair value hierarchy Level 2	Fair value hierarchy Level 3	
Financial assets	0	215,849	65,092,782	65,308,631

(Note 1) The fair value hierarchy Level 3: Unless otherwise specified, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value (refer to Note 35-3).

Disclosure of fair value measurement of liabilities

Current period

(Unit: KRW one thousand)

	Financial liabilities, Classification			
	Derivatives			
	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy
	Fair value hierarchy Level 1	Fair value hierarchy Level 2	Fair value hierarchy Level 3	
Financial liabilities	0	3,531,729	429,063	3,960,792

Previous period

(Unit: KRW one thousand)

	Financial liabilities, Classification			
	Derivatives			
	All levels of the fair value hierarchy			Total of all levels of the fair value hierarchy
	Fair value hierarchy Level 1	Fair value hierarchy Level 2	Fair value hierarchy Level 3	
Financial liabilities	0	81,934	0	81,934

(Note 1) The fair value hierarchy Level 3: Unless otherwise specified, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value (refer to Note 35-3).

Meanwhile, the fair values of cash and cash equivalents, other assets, interest-bearing borrowings, and bonds payable have been excluded from the fair value disclosure as the effects of discounting are not significant and are considered to be similar to their book values.

Valuation techniques and input variables

At the end of the period, among the assets and liabilities measured at fair value in the statement of financial position, those classified under Level 2 of the fair value hierarchy were valued using the market approach, with the fair value of the underlying assets as the input variable.

Disclosure of unobservable input variables used in the fair value measurement of assets

(Unit: KRW one thousand)

	Total measurement	
	Fair value	
	Financial assets, Classification	
	Derivatives	Long-term investment assets

	Put option for SK Chemicals Daejeong Co., Ltd.	Put option for HDC Polyall Co., Ltd.	Put option for Eastman Fiber Korea Ltd.	Sante Health Ventures IV LP	Korea Investment Bio Global Fund	Tiumbio Co., Ltd. Preferred stocks
	All levels of the fair value hierarchy					
	Fair value hierarchy Level 3					
Financial assets	1,085,246	7,699,750	29,147,160	12,540,114	1,602,469	14,268,961
Description of the valuation techniques used in fair value measurement, assets	Discounted cash flow method	Discounted cash flow method	Expected price considering the value of call options and put options	Net asset value method, etc.	Net asset value method, etc.	Binomial model
Description of the input variables used in fair value measurement, assets	Liquidation cash flow, weighted average cost of capital	Expected future cash flows, weighted average cost of capital	Exchange rate	Fair value of net assets, etc.	Fair value of net assets, etc.	Conversion price and expected stock volatility

Disclosure of unobservable input variables used in the fair value measurement of assets - Total

(Unit: KRW one thousand)

	Total measurement	
	Fair value	
	Financial assets, Classification	
	Derivatives	Long-term investment assets
	All levels of the fair value hierarchy	
	Fair value hierarchy Level 3	
Financial assets	8,784,996	57,558,704

Disclosure of unobservable input variables used in the fair value measurement of liabilities

(Unit: KRW one thousand)

	Total measurement
	Fair value
	Financial liabilities, Classification
	Derivatives
	Call option on convertible preferred stocks of Tiumbio Co., Ltd.
	All levels of the fair value hierarchy
	Fair value hierarchy Level 3
Financial liabilities	429,063
Description of the valuation techniques used in fair value measurement, liabilities	Binomial model
Description of the input variables used in fair value measurement, Liabilities	Expected stock price volatility

As of the end of the reporting period, the company believes that the carrying amounts of financial instruments that are not subsequently measured at fair value in the statement of financial position are not significantly different from their fair values. As of the end of the period, the carrying amounts of financial instruments that are not subsequently measured at fair value are as follows:

Disclosure of fair value not measured in the statement of financial position but disclosed fair value

(Unit: KRW one thousand)

	Total measurement				
	Fair value disclosed but not measured at fair value in the balance sheet				
	Financial assets, Classification				Financial assets, Total classification
	Long-term investment assets				
	Standigm Inc.	J2H Biotech Co., Ltd.	Oncobix Co., Ltd.	Yongyeon District 4 Industrial Water Management Association	
Financial assets	3,000,007	1,500,052	999,980	419,199	5,919,238

There were no significant movements between Level 1 and Level 2 of the fair value hierarchy for financial instruments corresponding to Level 3 during the period.

Adjustments to changes in fair value measurement, Assets

(Unit: KRW one thousand)

	Total measurement	
	Fair value	
	Assets	
	Long-term investment assets	Derivatives
	Financial assets measured at fair value through profit or loss	
	All levels of the fair value hierarchy	
	Fair value hierarchy Level 3	
Beginning assets	60,037,006	5,055,776
Purchase, Fair value measurement, Assets	2,678,208	0
Sale, Fair value measurement, Assets	(549,000)	0
Gains (losses) recognized in profit or loss (excluding foreign exchange differences), fair value measurement, Assets	1,311,730	3,729,220
Ending assets	63,477,944	8,784,996

Adjustments to changes in fair value measurement, Liabilities

(Unit: KRW one thousand)

	Total measurement
	Fair value
	Liabilities
	Derivatives
	All levels of the fair value hierarchy
	Fair value hierarchy Level 3
Beginning liabilities	0
Purchase, Fair value measurement, Liabilities	0
Disposal, fair value measurement, liabilities	0

Gains (losses) recognized in profit or loss (excluding foreign exchange differences), fair value measurement, Liabilities	429,063
Ending liabilities	429,063

6. Matters Concerning Dividends

A. Matters regarding the company's dividend policy

In accordance with the Articles of Incorporation, the Company pays dividends out as a major means of returning a certain portion of the Company's profits to its shareholders based on the resolutions of the Board of Directors and the General Meeting of Shareholders. In addition, dividends are determined by considering factors such as the investment and management performance for the Company's sustainable growth and the enhancement of shareholder value within the scope of the profits available for dividend.

In October 2021, the company clarified its shareholder return policy and disclosed a dividend policy with a set duration of 3 years to enhance predictability of the shareholder return scale for investors. The policy will be reviewed after this period to reflect changes in the environment.

(Dividend policy)

- ☐ Determination of the total amount of dividends at the level of 30% of the dividend payout ratio (based on the separate net income)
- ☐ Interim dividend implemented from 2022

The above dividend policy is subject to change depending on the business management environment and other conditions. The separate net income, which is the basis for determining the total amount of dividends, is the adjusted amount excluding the non-recurring profits and losses.

B. Matters related to providing predictability regarding dividends

(1) Implementation status of improvements to the dividend procedure as outlined in the Articles of Incorporation

Classification	Status and plans
The body responsible for determining the dividend amount as specified in the Articles of Incorporation	According to the company's Articles of Incorporation, the body responsible for determining the dividend amount is the shareholders' meeting for regular dividends and the Board of Directors for interim dividends.
Whether the dividend record date can be set after the dividend amount is determined, as specified in the Articles of Incorporation.	The company improved its dividend procedure by amending the Articles of Incorporation at the regular shareholders' meeting held on March 26, 2024, allowing the dividend record date to be set after the dividend amount is determined.
Future plans related to the implementation of improvements in the dividend procedure	The company has implemented the improvement in dividend procedures by setting the dividend record date after the dividend amount is determined, starting from the interim dividend on July 24, 2024. Going forward, the company will continue to strive to provide dividend predictability through the improved dividend procedures.

(2) Status of the designation of the dividend amount determination date and the dividend record date (year-end dividend)

Classification	Month of settlement	Dividend declaration status	Dividend amount Determination date	Dividend record date	Dividend predictability Provision status	Note
8th period (current period) year-end dividend	December 2024	O	-	March 31, 2024	O	-
7th period (previous period) year-end dividend	December 2023	O	March 26, 2024	December 31, 2023	X	-
6th period (the year before the previous period) year-end dividend	December 2022	O	March 28, 2023	December 31, 2022	X	-

※The dividend amount for the current period's year-end dividend will be determined at the 8th regular shareholders' meeting, scheduled to be held on March 26, 2025.

(2-1) Status of the designation of the dividend amount determination date and the dividend record date (interim dividend)

Classification	Month of settlement	Dividend declaration status	Dividend amount Determination date	Dividend record date	Dividend predictability Provision status	Note
8th period (current period) interim dividend	December 2024	O	July 24, 2024	August 9, 2024	O	-
7th period (previous period) interim dividend	December 2023	O	July 26, 2024	June 30, 2023	X	-
6th period (the year before the previous period) interim dividend	December 2022	O	July 27, 2022	June 30, 2022	X	-

C. Other Matters of Reference (such as the contents of the Articles of Incorporation related to dividends):
The dividend-related provisions in the company's Articles of Incorporation are as follows:

Article 13 (Equal Dividend)

The company shall provide equal dividends for the shares issued through paid-in capital increases, stock dividends, or bonus issues before the dividend record date.

Article 50 (Payment of Dividends)

- ① Dividends of profits may be paid with money, stocks, or other assets. However, the dividends paid by stock shall not exceed an amount equivalent to half of the total amount of dividends.
- ② The Company may, by resolution of the Board of Directors, set a record date for determining shareholders to receive the interim dividends under Paragraph 1, and if a record date is set, it shall be publicly announced 2 weeks prior to such record date.
- ③ For dividends paid out in stocks, if the Company has issued several types of stocks, a different type of stock may be used by a resolution of the General Meeting of Shareholders.

Article 50-1 (Interim Dividend)

- ① The Company may pay interim dividends pursuant to Article 462-3 of the Commercial Act by resolution of the Board of Directors.
- ② The Company may, by resolution of the Board of Directors, set a record date for determining shareholders to receive the interim dividends under Paragraph 1, and if a record date is set, it shall be publicly announced 2 weeks prior to such record date.
- ③ The interim dividend shall not exceed the amount obtained by deducting the following amounts from the net asset value on the balance sheet for the immediately preceding fiscal year.
 1. The amount of capital stock in the immediately preceding fiscal year
 2. The total amount of capital reserve and profit reserve accumulated up to the immediately preceding fiscal year
 3. Unrealized gains defined by the Enforcement Decree of the Commercial Act
 4. The amount of profit distribution decided at the regular meeting of shareholders in the immediately preceding fiscal year
 5. Discretionary reserve set aside for a specific purpose by the regulations in Articles of Incorporation or by resolution of the General Meeting of Shareholders up to the immediately preceding fiscal year
 6. The profit reserve to be set aside in the current fiscal year due to the interim dividend

Article 51 (Statute of Limitations for the Right to Claim Dividend Payments)

- ① If the right to claim dividends payment is not exercised for 5 years, the statute of limitations shall be deemed as complete.
- ② Dividends resulting from the completion of the statute of limitations as per Paragraph 1 shall be reverted to the Company.
- ③ No interest shall be added to the unpaid dividends.

D. Major indicators of dividend

Classification	Type of stock	Current period	Previous period	Period before the previous period
		The 8th Period	The 7th Period	The 6th Period
Par value per share (KRW)		5,000	5,000	5,000

(Consolidated) Net income (KRW one million)		8,839	39,864	191,266
(Separate) Net income (KRW one million)		70,167	41,754	69,270
(Consolidated) Earnings per share (KRW)		376	2,072	9,910
Total amount of cash dividends (KRW one million)		22,167	12,572	28,874
Total amount of stock dividends (KRW one million)		-	-	-
(Consolidated) Cash dividend payout ratio (%)		250.8	31.5	15.1
Cash dividend yield (%)	Common stocks	2.8	1.0	1.9
	Preferred stocks	6.4	2.3	3.9
Stock dividend yield (%)	Common stocks	-	-	-
	Preferred stocks	-	-	-
Cash dividend per share (KRW)	Common stocks	1,150	650	1,500
	Preferred stocks	1,200	700	1,550
Stock dividend per share (stocks)	Common stocks	-	-	-
	Preferred stocks	-	-	-

- ※ The cash dividends for the current period in the table above include the interim dividend. As it is subject to approval at the regular meeting of shareholders, if any rejections or revisions are made at the future regular meeting of shareholders, the details and reasons will be reflected in the correction report.
- ※ The '(Consolidated) Net income' above has been prepared based on the ownership interest of the controlling company.
- ※ The '(Consolidated) Earnings per share' above is the earnings per share for common stocks.
- ※ The current 'cash dividend yield (%)' was calculated using the arithmetic average of the closing prices formed in the market over the past week, prior to the Board resolution date (February 7).
- ※ For detailed information on the total cash dividend, please refer to Matters Concerning Finance - '3.Notes to the Consolidated Financial Statements in III. Financial Information.'

E. History of dividends

(Unit: times, %)

Number of consecutive dividends		Average dividend yield	
Quarterly (interim) dividend	Year-end dividend	For last 3 years	For last 5 years
4	7	1.9	1.6

- ※ The settlement of dividends for 2024 (8th period) is made before the approval of the regular meeting of shareholders, and in the event of a rejection or revision at the regular meeting of shareholders in the future, the relevant details and reason will be reflected in the correction report.※ The average dividend yield is for the dividend yield for common shares. For the preferred stocks, the average dividend yield for the last 3 years is 4.2%, and the average dividend yield for the last 5 years is 3.4%.
- ※ The Company was not able to pay dividends out for the 1st period since the actual business period ran for merely 1 month from the date of new establishment, December 1, 2017, until the date of settlement, and thus, there was no retained earnings, the financial resource for dividends.

7. Matters Concerning Financing via the Issuance of Securities

7-1 Financing Performance

[Matters related to the issuance of equity securities, etc.]

A. Status of capital increase (decrease)**[SK Chemicals]**

(Reference date: 2024.12.31)

(Unit: KRW, stocks)

Date of stock issuance (decrease)	Form of issuance (decrease)	Details of the shares issued (decreased)				
		Type	Quantity	Par value per share	Issue (reduction) price per share	Note
2022.11.11	Exercise of stock option	Common stocks	22,492	5,000	5,000	-

[SK bioscience]

(Reference date: 2024.12.31)

(Unit: KRW, stocks)

Date of stock issuance (decrease)	Form of issuance (decrease)	Details of the shares issued (decreased)				
		Type	Quantity	Par value per share	Issue (reduction) price per share	Note
2022.03.11	Exercise of stock option	Common stocks	100,000	500	9,154	-
2022.04.05	Exercise of stock option	Common stocks	65,556	500	9,154	-
2022.04.11	Exercise of stock option	Common stocks	118,490	500	9,154	-
2023.12.18	Exercise of stock option	Common stocks	43,704	500	9,154	-
2024.10.03	Paid-in capital increase (through third-party allocation)	Common stocks	1,519,543	500	49,821	-

※ Here is the capital increase status for the disclosure period.

[SK Multi-Utility]

– Not applicable

B. Status of the issuance of outstanding convertible bonds

– Not applicable

C. Status of the issuance of outstanding bonds with warrants, etc.

– Not applicable

D. Status of the issuance of outstanding contingent convertible bonds of conversion type

– Not applicable

[Matters related to the issuance of debt securities, etc.]

A. Performance in the issuance of debt securities

(Reference date: 2024.12.31)

(Unit: KRW one million, %)

Issuing company	Type of securities	Method of issuance	Date of issuance	Total par value (electronic registration)	Interest rate	Rating (rating agency)	Date of Maturity	Redeemed	Managing company
SK Chemicals	Commercial papers and securities	Private placement	2024.02.29	50,000	5.10	A2+(Korea Investors Service, NICE)	2024.05.30	Redeemed	Shinhan Bank

SK Chemicals	Corporate bond	public offering	2024.04.26	50,000	4.08	A+(Korea Ratings Inc. / Korea Investors Service Co.,Ltd. / Nice Investors Service Co., Ltd.)	2026.04.26	Unredeemed	SK Securities Co., Ltd. / KB Securities Co., Ltd.
SK Chemicals	Corporate bond	public offering	2024.04.26	100,000	4.17	A+(Korea Ratings Inc. / Korea Investors Service Co.,Ltd. / Nice Investors Service Co., Ltd.)	2027.04.26	Unredeemed	SK Securities Co., Ltd. / KB Securities Co., Ltd.
SK Chemicals	Commercial papers and securities	Private placement	2024.05.30	50,000	4.86	A2+(Korea Investors Service, NICE)	2024.11.29	Redeemed	Shinhan Bank
SK Chemicals	Commercial papers and securities	Private placement	2024.11.29	50,000	4.55	A2+(Korea Investors Service, NICE)	2025.05.30	Unredeemed	Shinhan Bank
Total	-	-	-	300,000	-	-	-	-	-

B. Outstanding balance of commercial papers and securities

(Reference date: 2024.12.31)

(Unit: KRW one million)

Residual maturity		10 days or less	Over 10 days 30 days or less	Over 30 days 90 days or less	Over 90 days 180 days or less	Over 180 days 1 year or less	Over 1 year 2 years or less	Over 2 years 3 years or less	Over 3 years	Total
Outstanding balance	public offering	-	-	-	-	-	-	-	-	-
	Private placement	-	-	-	50,000	-	-	-	-	50,000
	Total	-	-	-	50,000	-	-	-	-	50,000

C. Outstanding balance of short-term bonds

(Reference date: 2024.12.31)

(Unit: KRW one million)

Residual maturity		10 days or less	Over 10 days 30 days or less	Over 30 days 90 days or less	Over 90 days 180 days or less	Over 180 days 1 year or less	Total	Issuance limit	Remaining limit
Outstanding balance	public offering	-	-	-	-	-	-	-	-
	Private placement	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-

D. Outstanding balance of corporate bonds

(Reference date: 2024.12.31)

(Unit: KRW one million)

Residual maturity		1 year or less	Over 1 year 2 years or less	Over 2 years 3 years or less	Over 3 years 4 years or less	Over 4 years 5 years or less	Over 5 years 10 years or less	Over 10 years	Total
Outstanding balance	public offering	95,000	120,000	100,000	-	-	-	-	315,000
	Private placement	-	-	-	-	-	-	-	-
	Total	95,000	120,000	100,000	-	-	-	-	315,000

E. Outstanding balance of hybrid securities

(Reference date: 2024.12.31)

(Unit: KRW one million)

Residual maturity		1 year or less	Over 1 year 5 years or less	Over 5 years 10 years or less	Over 10 years 15 years or less	Over 15 years 20 years or less	Over 20 years 30 years or less	Over 30 years	Total
Outstanding balance	public offering	-	-	-	-	-	-	-	-
	Private placement	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-

F. Outstanding balance of contingent convertible bonds

(Reference date: 2024.12.31)

(Unit: KRW one million)

Residual maturity		1 year or less	Over 1 year 2 years or less	Over 2 years 3 years or less	Over 3 years 4 years or less	Over 4 years 5 years or less	Over 5 years 10 years or less	Over 10 years 20 years or less	Over 20 years 30 years or less	Over 30 years	Total
Outstanding balance	public offering	-	-	-	-	-	-	-	-	-	-
	Private placement	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-

G. Key details of the bond management contracts and whether they are satisfied [SK Chemicals]

(Reference date: 2024.12.31)

(Unit: KRW one million, %)

Name of bond	Date of Issuance	Date of Maturity	Amount of issuance	Date of execution of bond management contract	Bond management company
The 12-2nd public placement bonds	2019.10.30	2024.10.30	75,000	2019.10.18	Korea Securities Finance

(Reference date for performance status: 2024.12.31)

Status of financial ratio maintenance	Details of agreements	400% or less of debt-to-equity ratio (on a consolidated basis)
	Status of performance	Execution
Status of restrictions on the placement of security right	Details of agreements	400% or less of total equity combining payment guarantees and assets provided for collateral (on a consolidated basis)
	Status of performance	Execution
Status of restrictions on asset disposal	Details of agreements	KRW 2 trillion or less of asset disposal (on a consolidated basis), 70% or less of total assets for asset disposal (on a consolidated basis)
	Status of performance	Execution
Status of restrictions on changes in governance	Details of agreements	Corporate groups with restrictions on cross investment maintained
	Status of performance	Complied with
Status on submission of performance status report	Status of performance	Performed (August 2024)

※ The reference date for the status of performance is the date of preparation of the latest financial statements in which the Auditor's opinion (confirmation and expression of opinion) was applied when the status of performance is expressed, and the status of restrictions on the changes in governance is the reference date of preparation of disclosure documents.

(Reference date: 2024.12.31)

(Unit: KRW one million, %)

Name of bond	Date of Issuance	Date of Maturity	Amount of issuance	Date of execution of bond management contract	Bond management company
The 13-1st public placement bonds	2023.02.24	2024.08.23	35,000	2023.02.14	Korea Securities Finance
The 13-2nd public placement bonds	2023.02.24	2025.02.24	95,000	2023.02.14	Korea Securities Finance
The 13-3rd public placement bonds	2023.02.24	2026.02.24	70,000	2023.02.14	Korea Securities Finance

(Reference date for performance status: 2024.12.31)

Status of financial ratio maintenance	Details of agreements	400% or less of debt-to-equity ratio (on a consolidated basis)

	Status of performance	Execution
Status of restrictions on the placement of security right	Details of agreements	400% or less of total equity combining payment guarantees and assets provided for collateral (on a consolidated basis)
	Status of performance	Execution
Status of restrictions on asset disposal	Details of agreements	KRW 2 trillion or less of asset disposal (on a consolidated basis), 70% or less of total assets for asset disposal (on a consolidated basis)
	Status of performance	Execution
Status of restrictions on changes in governance	Details of agreements	Corporate groups with restrictions on cross investment maintained
	Status of performance	Complied with
Status on submission of performance status report	Status of performance	Performed (August 2024)

※ The reference date for the status of performance is the date of preparation of the latest financial statements in which the Auditor's opinion (confirmation and expression of opinion) was applied when the status of performance is expressed, and the status of restrictions on the changes in governance is the reference date of preparation of disclosure documents.

(Reference date: 2024.12.31)

(Unit: KRW one million, %)

Name of bond	Date of Issuance	Date of Maturity	Amount of issuance	Date of execution of bond management contract	Bond management company
The 14-1st public placement bonds	2024.04.26	2026.04.24	50,000	2024.04.16	Korea Securities Finance
The 14-2nd public placement bonds	2024.04.26	2027.04.26	100,000	2024.04.16	Korea Securities Finance

(Reference date for performance status: 2024.09.30)

Status of financial ratio maintenance	Details of agreements	400% or less of debt-to-equity ratio (on a consolidated basis)
	Status of performance	Execution
Status of restrictions on the placement of security right	Details of agreements	400% or less of total equity combining payment guarantees and assets provided for collateral (on a consolidated basis)
	Status of performance	Execution
Status of restrictions on asset disposal	Details of agreements	KRW 2 trillion or less of asset disposal (on a consolidated basis), 70% or less of total assets for asset disposal (on a consolidated basis)
	Status of performance	Execution
Status of restrictions on changes in governance	Details of agreements	Corporate groups with restrictions on cross investment maintained
	Status of performance	Complied with
Status on submission of performance status report	Status of performance	Performed (August 2024)

※ The reference date for the status of performance is the date of preparation of the latest financial statements in which the auditor's opinion (confirmation and expression of opinion) was applied when the status of performance is expressed, and the status of restrictions on the changes in governance is the reference date of preparation of disclosure documents.

[SK bioscience]

- Not applicable

[SK Multi-Utility]

- Not applicable

7-2 Use of Funds Raised

A. History of the use of public placement bonds

[SK Chemicals]

(Reference date: 2024.12.31)

(Unit: KRW one million)

Classification	Meeting Number	Date of payment	Plans for use of funds such as securities declarations		History of the actual funds used		Reason for difference, etc.
			Purpose of use	Amount raised	Details	Amount	
Public placement bonds	The 13-1st	2023.02.24	For repayment of debt	35,000	For repayment of debt	35,000	-
Public placement bonds	The 13-2nd	2023.02.24	For repayment of debt	95,000	For repayment of debt	95,000	-
Public placement bonds	The 13-3rd	2023.02.24	Operating capital	19,000	Operating capital	19,000	-
Public placement bonds	The 13-3rd	2023.02.24	For repayment of debt	51,000	For repayment of debt	51,000	-
Public placement bonds	The 14-1st	2024.04.26	For repayment of debt	50,000	For repayment of debt	50,000	-
Public placement bonds	The 14-2nd	2024.04.26	For repayment of debt	100,000	For repayment of debt	100,000	-

※ The history of the use of public placement bonds above are the details of the bonds issued after the split-off on December 1, 2017.

※ Included in the debt service related funds are the amounts of repayment for corporate bonds, and in the operating capital are the purchase prices of raw materials, etc.

[SK bioscience]

- Not applicable

[SK Multi-Utility]

- Not applicable

a. History of the use of private placement bonds

[SK chemicals]

- Not applicable

[SK bioscience]

(Reference date: December 31, 2024)

(Unit: KRW one million)

Classification	Meeting Number	Date of payment	Fund usage plan securities declarations		History of the actual funds used		Reason for difference, etc.
			Purpose of use	Amount raised	Details	Amount	
Third-party allocation of new shares	-	2024.10.02	Other capital	75,705	Acquisition financing	75,705	-

[SK Multi-Utility]

- Not applicable

8. Other Finance-Related Matters

A. Cautions for reparation of financial statements, etc.

1) Reparation of financial statements

The Company completed the sale of the bio-energy business division and the PPS business division on May 29, 2020 and December 31, 2021, respectively, and reprepared the consolidated and separate financial statements for the comparative period.

2) Merger, split-off, asset transfer, and business transfer

The details of mergers, split-offs, asset transfers, and business transfers that have taken place during the last three fiscal years are as below.

(1) Establishment of subsidiary and acquisition of tangible assets

On March 6, 2023, the Board of Directors resolved to establish a subsidiary, Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd., and on March 6, 2023, the subsidiary, Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd., decided to acquire tangible assets from Shuye Environmental Technology Co., Ltd.

[Related disclosure]

Decision on acquisition of shares and equity securities of other corporations, 2023.03.06

Decision on paid-in capital increase (matters concerning major business of subsidiaries), 2023.03.06

3) Matters concerning the accounting of asset sales related to asset securitization, contingent liabilities, etc.

For the matters concerning contingent liabilities, refer to "III. Financial Information - 3. Note 18 in the consolidated financial statements Financial Statements."

4) Other matters to be cautionary about when using the financial statements

As for the details on other matters to be aware of when using the consolidated financial statements, refer to "III. Financial Information - 3. Notes to the Consolidated Financial Statements."

As for the details on the matters to be aware of when using the financial statements, refer to "III. Financial Information - 5. Notes to the Financial Statements."

B. Status of the setting of the bad debt provisions (based on the consolidated financial statements)

1) Details of the placement of bad debt provisions for each account item

The details of the trade and other receivables during the period subject to disclosure are as follows.

(Unit: KRW one thousand)

Classification	Account title	Amount of receivables	Allowance for bad debts	Provision ratio for bad debt
The 8th period (current period)	Trade receivables	260,823,674	3,273,250	1.3%
	Accounts receivable	99,081,873	88,335	0.9%
	Short-term loans	2,440,000	2,440,000	100.0%
	Accrued revenue	11,926,930	-	-
	Long-term loans	957,290	-	-
	Total	375,229,767	5,801,585	1.5%
The 7th period (previous period)	Trade receivables	157,843,734	4,116,420	2.6%
	Accounts receivable	19,936,059	119,964	0.6%
	Short-term loans	3,040,000	3,040,000	100.0%
	Accrued revenue	6,454,723	-	-

	Long-term loans	788,676	-	-
	Total	188,498,443	7,276,384	3.9%
The 6th period (period before previous period)	Trade receivables	188,942,419	4,714,759	2.5%
	Accounts receivable	64,068,419	144,517	0.2%
	Short-term loans	3,400,877	3,400,000	99.9%
	Accrued revenue	1,787,938	-	-
	Long-term loans	863,517	-	-
	Total	269,524,097	8,259,276	3.1%

2) Status of changes in allowance for bad debts

The details of changes in the bad debt provisions for the trade and other receivables during the period subject to disclosure are as follows.

(Unit: KRW one thousand)

Classification	The 8th Period	The 7th Period	The 6th Period
Beginning of period	7,276,384	8,259,276	8,750,082
Placements (reversal)	(1,185,153)	153,809	570,555
Removal, exchange rate fluctuations, etc.	(289,646)	(1,136,701)	(679,634)
Held for sale classification	-	-	(381,727)
End of period	5,801,585	7,276,384	8,259,276

3) Policy for the setting of the bad debt provisions related to trade receivables

For contract assets, trade receivables, and other receivables, the consolidated companies apply the simple method and calculate the expected credit loss based on the expected life of credit loss.

The consolidated companies design the loss provisioning ratio table based on the past credit loss experiences adjusted to reflect the borrower's unique future forecast factors and economic environment.

For other debt instruments (i.e., deposits and loans), the expected credit loss is based on the 12-month expected credit loss. The 12-month expected credit loss is part of the expected credit loss for the entire period, which represents the expected credit loss due to events of default on the financial instruments that may occur within 12 months after the end of the reporting period.

(Provisioning rate)

Normal bonds	Classification	Experience rate
Court receivership/composition obligation	Debentures within the scope of collateral	0%
	Amount in excess of the scope of collateral	100%
Other accident receivables	Debentures within the scope of collateral	0%
	Amount in excess of the scope of collateral	100%

4) Status of the balance of trade and other receivables by the elapsed period

(Reference date: 2024.12.30)

Data Analysis, Retrieval and Transfer System (dart.fss.or.kr)

(Unit: KRW one thousand)

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Classification	The 8th Period	The 7th Period	The 6th Period
Unmatured	267,262,578	166,263,257	194,813,921
Within 90 days	95,279,780	14,822,315	46,160,540
Within 180 days	2,906,800	4,641,830	21,843,756
Over 180 days	9,780,609	2,335,790	6,705,880
Sub Total	375,229,767	188,063,192	269,524,097
(Deducted: allowance for bad debts)	(5,801,585)	(7,276,384)	(8,259,276)
Deductions	369,428,182	180,786,808	261,264,821

C. Status of inventories, etc. (based on the consolidated financial statements)

1) Status of the inventories held by business division

[SK Chemicals]

The details of the inventories by business division as of the date of preparation of disclosure documents are as follows.

(Reference date: 2024.12.31)

(Unit: KRW one thousand)

Business division	By account title	The 8th Period	The 7th Period	The 6th Period
Green Chemicals Biz.	Goods	14,325,200	7,985,309	3,817,060
	Product	126,966,365	114,029,357	150,412,801
	Processed products	28,624,880	36,643,196	28,655,096
	Half finished products	5,701,615	3,728,799	4,802,695
	Goods in process	2,694,807	4,301,519	4,561,160
	Raw materials	43,261,515	24,482,874	25,064,612
	Stored goods	1,551,410	975,092	-
	Goods to arrive	40,105,898	29,442,806	22,109,018
	Others	540,294	684,620	1,106,953
	Subtotal	263,771,984	222,273,572	240,529,396
Life Science Biz.	Goods	29,632,566	21,031,585	17,838,138
	Product	61,869,594	23,951,511	16,541,491
	Processed products	5,499,311	3,951,227	1,620,557
	Half finished products	24,133,840	16,175,151	60,623,376
	Goods in process	52,218,122	11,868,856	12,884,060
	Raw materials	97,575,618	43,448,810	70,828,412
	Stored goods	29,323,976	34,217,244	-
	Goods to arrive	1,238,103	-	1,177,497
	Others	223,347	-	60,710,154
	Subtotal	301,714,477	154,644,384	242,223,685
Total		565,486,461	376,917,956	482,753,081
Inventory composition ratio to total assets (%) [Sum of inventory assets ÷ Total assets at the end of the period × 100]		10.5	9.1	12.2
Inventory turnover (number of times) [Annualized cost of sales ÷ {(Stock at beginning of period + Stock at end of period) ÷ 2}]		3.6	3.0	2.9

The details of the inventories as of the date of preparation of disclosure documents are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	44,568,229	(610,463)	43,957,766
Product	208,743,687	(19,907,728)	188,835,959
Processed products	35,225,461	(1,101,271)	34,124,190
Half finished products	38,700,210	(8,864,755)	29,835,455
Goods in process	70,464,856	(15,551,927)	54,912,929
Raw materials	171,745,555	(30,908,422)	140,837,133
Stored goods	44,249,145	(13,373,759)	30,875,386
Goods to arrive	41,344,001	-	41,344,001
Other inventories	763,642	-	763,642
Total (Note1)	655,804,786	(90,318,325)	565,486,461

(Note 1) The amount of KRW 8,810,973,000 includes costs related to contract performance (see Note 21).

<End of the previous period>

(Unit: KRW one thousand)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	29,573,909	(557,015)	29,016,894
Product	144,430,750	(6,449,883)	137,980,867
Processed products	42,155,957	(1,561,534)	40,594,423
Half finished products	40,416,968	(20,513,018)	19,903,950
Goods in process	24,218,535	(8,048,160)	16,170,375
Raw materials	116,560,009	(48,628,325)	67,931,684
Stored goods	57,245,236	(22,052,900)	35,192,336
Goods to arrive	29,442,806	-	29,442,806
Other inventories	684,620	-	684,620
Total (Note1)	484,728,790	(107,810,835)	376,917,955

[SK bioscience]

(Reference date: 2024.12.31)

(Unit: KRW one million)

Business division	Account title	The 7th Period	The 6th Period	The 5th Period
Vaccines	Goods	1,117	468	2,217
	Product	44,523	8,061	1,915
	Half finished products	14,622	9,703	54,548
	Goods in process	48,273	11,869	12,884
	Raw materials	74,623	18,533	56,863
	Stored goods	27,612	32,015	58,979
	Goods to arrive	132	-	-
	Others	223	-	-
	Total	211,126	80,649	187,406
Inventory composition ratio to total assets (%) [Sum of inventory assets ÷ Total assets at the end of the period × 100]		7.4	4.4	8.7
Inventory turnover (number of times) [Annualized cost of sales ÷ {(Stock at beginning of period + Stock at end of period) ÷ 2}]		1.6	1.7	1.3

[SK Multi-Utility]

(Reference date: 2024.12.31)

(Unit: KRW one million)

Business division	Account title	The 4th period	The 3rd Period	The 2nd Period
Supply of utilities such as electricity and steam	Raw materials	16,206	1,096	1,452
	Total	16,206	1,096	1,452
Inventory composition ratio to total assets (%) [Sum of inventory assets ÷ Total assets at the end of the period × 100]		2.3	0.2	0.5

Inventory turnover (number of times) [Annualized cost of sales ÷ {(Stock at beginning of period + Stock at end of period) ÷ 2}]	14.7	102.4	93.5

2) Details of the due diligence of inventories (including the consolidated major subsidiaries)

[SK Chemicals]

(1) Purpose of the inventories' due diligence

- Confirmation of the existence of the inventories as of the date of the statement of financial position
- Presence of a certified public accountant of an external audit firm (Hanyoung Accounting Corporation) for the due diligence of inventories by the person in charge of each plant as of the end of December

(2) Year-end inventories' due diligence and the due diligence procedures

Place, date, and time	Observer	Performer of due diligence	Note
Ulsan Plant: 2025.01.08	3 persons	1 person	Due diligence of inventories
Cheongju Plant: 2025.01.03	1 person	2 persons	Due diligence of inventories
Cheonan Outsourced Warehouse: 2024.12.30	1 person	2 persons	Due diligence of inventories

(3) Method of due diligence

- Performed the sample surveys by business division and product, and verified the storage certificate for the stocks in storage and in transit
- The External Auditor witnessed and confirmed the Company's inventories' due diligence and sampled some of the items to confirm their existence and completeness

(4) Status of long-term accumulated inventories, etc. (based on the consolidated financial statements)

Where the market price of inventories falls below the acquisition cost, the value of the inventories is determined by using the lower of cost or net realizable value method. The evaluative details of the inventories as of the date of preparation of the disclosure documents are as follows.

(Reference date: 2024.12.31)

(Unit: KRW one million)

Account title	Account title	Acquisition cost	Amount held	Assessment allowance	Balance at end of the current period
Green Chemicals Biz	1. Products/Goods	177,897	177,897	(7,980)	169,916
	2. Half finished products/Goods in process	8,399	8,399	(3)	8,396
	3. Raw materials	43,284	43,284	(23)	43,262
	4. Goods to arrive	40,106	40,106	0	40,106
	5. Others	2,092	2,092	0	2,092
	Subtotal	271,778	271,778	(8,006)	263,772
Life Science Biz.	1. Products/Goods	110,640	110,640	(13,639)	97,001
	2. Half finished products/Goods in process	100,766	100,766	(24,414)	76,352
	3. Raw materials	128,461	128,461	(30,886)	97,576
	4. Goods to arrive	1,238	1,238	0	1,238
	5. Others	42,921	42,921	(13,374)	29,547
	Subtotal	384,027	384,027	(82,312)	301,714
Total		655,805	655,805	(90,318)	565,486

[SK bioscience]

(1) Purpose of the inventories' due diligence

- Confirmation of the existence of the inventories as of the date of the statement of financial position
- Presence of a certified public accountant of an external audit firm (Hanyoung Accounting Corporation) for the due diligence of inventories by the person in charge of each plant as of the end of December

[IDT Biologika]

- Confirmation of the existence of the inventories as of the date of the statement of financial position
- During the inventory count based on the factory-specific responsible person's audit date, the Auditor from the external audit firm (RSM Ebner Stolz) attended the count. Any inventory changes between the audit date and the balance sheet date were reflected using forward calculation.

(2) Year-end inventories' due diligence and the due diligence procedures

Place, date, and time	Observer	Performer of due diligence	Note
Andong Plant: January 8, 2025 (Wednesday)	1 person	1 person	Due diligence of inventories
Anseong/Songsan Warehouse: January 8, 2025 (Wednesday)	2 persons	2 persons	Due diligence of inventories
IDT Biologika (Dessau) : October 23, 2024 (Wednesday)	1 person	16 persons	Due diligence of inventories
IDT Biologika (Leipzig) : October 23, 2024 (Wednesday)	2 persons	3 persons	Due diligence of inventories

(3) Method of due diligence

- Performed the sample surveys by business division and product
- Verified the storage certificate for the stocks in storage and in transit
- The External Auditor witnessed and confirmed the Company's inventories' due diligence and sampled some of the items to confirm their existence and completeness

(4) Status of long-term accumulated inventories, etc.

SK Bioscience holds some long-term accumulated stocks (1 year or longer) and has appropriately provisioned allowances for assessment.

(Reference date: 2024.12.31)

(Unit: KRW one million)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	1,145	(28)	1,117
Product	57,312	(12,789)	44,523
Half finished products	23,486	(8,864)	14,622
Goods in process	63,825	(15,552)	48,273
Raw materials	105,508	(30,885)	74,623
Stored goods	40,963	(13,351)	27,612
Goods to arrive	132	-	132
Others	223	-	223
Total (Note 1)	292,593	(81,467)	211,126

(Note 1) The amount of KRW 8,810,973,000 includes costs related to contract performance.

[SK Multi-Utility]

(1) Purpose of the inventories' due diligence

- Confirmation of the existence of the inventories as of the date of the statement of financial position
- Presence of a certified public accountant of an external audit firm (Hanyoung Accounting Corporation) for the due diligence of inventories by the person in charge of each plant as of the end of December

(2) Year-end inventories' due diligence and the due diligence procedures

Place, date, and time	Observer	Performer of due diligence	Note
Ulsan Plant: 2025.01.03	1 person	1 person	-

(3) Method of due diligence

- Performed the sample surveys by the stock of raw materials
- Verified the storage certificate for the stocks in storage and in transit
- The External Auditor witnessed and confirmed the Company's inventories' due diligence and sampled some of the items to confirm their existence and completeness

(4) Status of long-term accumulated inventories, etc.

SK Multi-Utility does not hold long-term accumulated stocks (1 year or

longer). The details of the inventories as of the reference date of the

preparation of the report are as follows.

(Reference date: 2024.12.31)

(Unit: KRW one million)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	-	-	-
Product	-	-	-
Half finished products	-	-	-
Goods in process	-	-	-
Raw materials	16,206	-	16,206
Stored goods	-	-	-
Goods to arrive	-	-	-
Total	16,206	-	16,206

D. Details of the fair value assessment (based on the consolidated financial statements)

The consolidated companies classify the fair value measurements according to the fair value hierarchy which reflects the significance of the input variables used for the fair value measurement, and the levels of the fair value hierarchy are as follows.

Level 1: (Unadjusted) quoted price level in the active markets for the same asset or liability

Level 2: Inputs to assets or liabilities that are directly or indirectly observable

Level 3: Inputs to assets or liabilities that are not based on the observable market data
(unobservable input variables)

The fair value measurements for each level of financial instruments as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Level 1	Level 2	Level 3 (Note 1)	Total
Financial assets				
Current assets in derivative financial instruments	-	195	8,784,996	8,785,191
Short-term financial assets	-	611,864,246	-	611,864,246
Long-term investment assets	11,818,800	-	74,016,469	85,835,269
Total	11,818,800	611,864,441	82,801,465	706,484,706
Financial liabilities				
Current liabilities in derivative financial instruments	-	5,191,791	429,063	5,620,854
Total	-	5,191,791	429,063	5,620,854

(Note 1) Except as otherwise provided, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value (refer to Note 35-3).

<End of the previous period>

(Unit: KRW one thousand)

Classification	Level 1	Level 2	Level 3 (Note 2)	Total
Financial assets				
Current assets in derivative financial instruments	-	435,251	5,055,776	5,491,027
Short-term financial assets	-	871,919,247	-	871,919,247
Long-term investment assets	40,229,280	-	62,537,088	102,766,368
Total	40,229,280	872,354,498	67,592,864	980,176,642
Financial liabilities				
Current liabilities in derivative financial instruments	-	110,856	-	110,856
Total	-	110,856	-	110,856

(Note 1) Except as otherwise provided, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value (refer to Note 35-3).

For financial instruments recognized at fair value on a recurring basis, The consolidated companies reassess the classification at the end of each reporting date (based on the lowest level of inputs that are significant to the measurement as a whole) to determine whether there are transfers between levels.

During the current period, there were no changes in the consolidated companies' valuation process, valuation techniques or the types of inputs

IV. Management Analysis and Directors' Opinions

1. Cautions for the forward-looking information

The activities, events or phenomena expected or predicted by the Company to occur in the future in this Business Report are reflective of the Company's views on the events and financial performance at the time of the preparation of the disclosure documents for the relevant period. This forward-looking information is based on various assumptions related to the future business environment, and these assumptions may prove to be inaccurate as a result.

Furthermore, these assumptions include risks, uncertainties, and other factors which might cause material differences between the estimates and actual results entered in the forward-looking information. The factors which might cause such material differences include without limitations the factors related to the Company's internal management and the factors related to the external environment.

The Company has no obligation to disclose a correction report that revises the matters stated in the forward-looking information to reflect the risks or uncertainties that arise after the time of preparation of the forward-looking information.

Consequently, the Company cannot provide the assurance that the results or matters expected by the Company in this business report will be realized or that the Company's initially anticipated impact will be materialized in effect. Be advised that the forward-looking information entered in this Report was prepared as of the time of the preparation of this Report, and the Company does not plan to update such risk factors or the forward-looking information.

2. Overview

Since its establishment on December 1, 2017, through a spin-off from SK discovery Co., Ltd. (formerly SK chemicals Co., Ltd.), the company has been consistently achieving stable growth every year based on its two business segments: Green Chemical Biz. and Life Science Biz. The company has selected the eco-friendly and healthcare sectors as key areas for next-generation development, continuing to secure core competencies while focusing on improving performance and securing future growth drivers.

The global economy in 2024 continued to face a challenging business environment due to factors such as consumer recession and escalating geopolitical risks. The chemical industry, in particular, experienced a continued negative market condition due to oversupply from countries like China and the impact of accumulated capacity expansions. Despite these challenging conditions, the company continued to expand its high-value portfolio based on its differentiated technology in copolyester. Additionally, through stable sales of key products in the Pharma business, the company achieved growth in both revenue and operating profit compared to the previous year, on a standalone basis. Through the acquisition of IDT Biologika by its subsidiary SK biosciences and the entry into Phase 3 clinical trials for PCV21, the company is advancing towards its goal of becoming a global vaccine leader.

In 2024, the company reported consolidated revenue of 1.7368 trillion KRW, an operating loss of 45.2 billion KRW, standalone revenue of 1.3405 trillion KRW,

and operating profit of 111.1 billion KRW. Although economic uncertainties, such as heightened trade risks centered on tariffs and exchange rate risks, are expected to continue in 2025, the company will focus on strengthening its profit generation capabilities through the advancement of the copolyester business and securing technologies to dominate the recycling market. We will remain dedicated to building a sustainable business model through proactive efforts.

3. Financial position and operating performance results (on a consolidated basis)

1) Financial position

(Unit: KRW one million)

Account	The 8th Period	The 7th Period	Amount of increase	Rate of increase
[Current assets]	2,385,758	2,204,427	181,331	8.2%
[Non-current assets]	2,981,290	1,954,348	1,026,942	52.5%
Total Assets	5,367,048	4,158,775	1,208,273	29.1%

[Current liabilities]	983,246	830,211	153,035	18.4%
[Non-current liabilities]	1,350,836	652,790	698,046	106.9%
Total liabilities	2,334,082	1,483,001	851,081	57.4%
[Shares owned by the controlling company]	2,200,693	2,118,704	81,989	3.9%
[Non-controlling interest]	832,273	557,070	275,203	49.4%
Total equity	3,032,966	2,675,774	357,192	13.3%
Total liabilities and stockholders' equity	5,367,048	4,158,775	1,208,273	29.1%

※ The 8th period (current period) is the consolidated financial statement prior to being approved at the General Meeting of Shareholders. Moving forward, if any agenda related to the approval of the financial statements is rejected or revised at a regular meeting of shareholders, the relevant details and reasons, etc., will be reflected in the correction report.

- On a consolidated basis in 2024, the total assets increased by KRW 1,208.2 billion (29.1%) from the previous year to KRW 5,367 billion. The current assets decreased by KRW 181.3 billion (8.2%) while the non-current assets increased by KRW 1,026.9 billion (52.5%). The main reason for the increase in non-current assets is the increase in tangible assets due to investment in new facilities at SK Bioscience, a major subsidiary.
- The total liabilities increased by KRW 851.1 billion (57.4%) from the previous year to KRW 2,334.1 billion. The current liabilities decreased by KRW 153 billion (18.4%), while the non-current liabilities increased by KRW 698 billion (106.9%). The main reason for the increase in non-current liabilities was an increase in long-term borrowings.
- Total equity increased by KRW 357.2 billion (13.3%) compared to the previous year. The equity attributable to the owners of the parent company is KRW 2,200.7 trillion, while the non-controlling interest is KRW 832.3 billion.

2) Operating performance results

(Unit: KRW one million)

Account	The 8th Period	The 7th Period	Amount of increase	Rate of increase
Sales revenue	1,736,779	1,748,778	(11,999)	-0.7%
Cost of sales	1,340,794	1,275,846	64,948	5.1%
Gross profit	395,985	472,932	(76,947)	-16.3%
Selling and administrative expenses	441,161	389,629	51,532	13.2%
Operating profit (loss)	(45,176)	83,302	(128,478)	Turned into a deficit
Other income	42,811	12,048	30,763	255.3%
Other expenses	30,309	43,875	(13,566)	-30.9%
Financial income	97,755	129,106	(31,351)	-24.3%
Financial cost	91,735	125,297	(33,562)	-26.8%
Loss on equity method valuation	(786)	(2,865)	2,079	72.6%
Net income (loss) before income tax expenses	(27,441)	52,419	(79,860)	Turned into a deficit
Net income (loss) for the year	(4,365)	47,838	(52,203)	Turned into a deficit

※ The 8th period (current period) is the consolidated financial statement prior to being approved at the General Meeting of Shareholders. Moving forward, if any agenda related to the approval of the financial statements is rejected or revised at a regular meeting of shareholders, the relevant details and reasons, etc., will be reflected in the correction report.

- In 2024, the consolidated sales recorded KRW 1,736.8 billion, down by KRW 12 billion (-0.7%) from the previous year. The Copolyester business within Green Chemicals Biz. achieved strong financial performance despite the global economic downturn by improving its portfolio through the expansion of high-value products. Meanwhile, the Pharma division of Life Science Biz. continued stable sales through the expansion of key products. However, due to the reduction in revenue and profit from the subsidiary SK bioscience, the consolidated net income for the period turned into a deficit.

<Operating performance by business division>

<Current period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Internal transactions, etc.	Total
Sales revenue	1,473,610,421	624,775,140	(361,606,659)	1,736,778,902
Operating income	87,094,981	(119,278,528)	(12,992,021)	(45,175,568)

<Previous period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Internal transactions, etc.	Total
Sales revenue	1,285,198,836	745,554,322	(281,975,418)	1,748,777,740
Operating income	52,005,352	19,531,325	11,765,810	83,302,487

3) Details of the New Businesses

The Company plans to proactively respond to the rapidly changing market by strengthening the competitiveness of existing businesses and expanding the recycling business. To this end, during the previous period, the company established a foreign subsidiary, Shuye-SK Environmental Materials (Shantou) Co., Ltd., securing CR-PET materials and CR raw materials (r-BHET), thereby laying the foundation for the recycling business.

- Investment Target: Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.
- Location of the Business: Shantou, China
- Key Products: 50,000 tons of CR-PET, 70,000 tons of r-BHET
- Amount Invested by the Company: KRW 66,094,000,000
- Expected Effect: Securing expansion opportunities with recycling-related businesses by securing r-BHET early. For more information about the new business, please refer to [II. Business Description - 7. Other Matters of Reference - (4) New businesses, etc.].

4) Reorganization

In 2024, the company implemented an organizational restructuring to optimize efficiency and realign the roles and responsibilities (R&R) of each division in order to achieve its business strategy. Through this, the company aims to clarify the roles of each responsible organization, thereby enhancing project execution capabilities and achieving business advancement and strengthened expertise.

5) Effect of the exchange rate fluctuations

Exchange risk is the risk where the fair value of financial instruments or future cash flows will fluctuate due to the fluctuations in the exchange rates. Reported

The book value of the monetary assets and liabilities denominated in foreign currencies other than the functional currency as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period		End of the previous period	
	Assets	Liabilities	Assets	Liabilities
USD	196,775,227	(126,302,582)	81,771,660	(60,674,198)
CNY	17,862,458	(6,731,967)	24,935,031	(144,742,567)
EUR	197,158,050	(124,106,723)	23,896,005	(79,185,096)
GBP	2,678	(36,420)	-	-
JPY	4,036,668	-	2,954,389	(41,754)
Others	666,270	-	396,319	(102,450)
Total	416,501,351	(257,177,692)	133,953,404	(284,746,065)

(Note 1) The foreign currency borrowings and foreign currency bonds for which currency swaps are executed are excluded since they are not exposed to the exchange risk.

As of the end of the reporting period, if the exchange rate of the functional currency for each foreign currency fluctuates by 5%, the effect on the profit and loss before tax for the current period and the previous period is as follows.

(Unit: KRW one thousand)

Classification	End of the current period		End of the previous period	
	5% increase	5% decrease	5% increase	5% decrease
USD	16,153,890	(16,153,890)	7,122,293	(7,122,293)
CNY	1,229,721	(1,229,721)	8,483,880	(8,483,880)
EUR	16,063,239	(16,063,239)	5,154,055	(5,154,055)
GBP	1,955	(1,955)	-	-
JPY	201,833	(201,833)	149,807	(149,807)
Others	33,314	(33,314)	24,938	(24,938)
Total	33,683,952	(33,683,952)	20,934,973	(20,934,973)

4. Liquidity and financing and expenditure

1) Status of borrowings, etc.

(1) The details of the bonds and borrowings as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Short-term borrowings	303,095,328	263,707,890
Current portion of long-term liabilities:		
Current portion of bonds payable	94,970,000	189,855,128
Current portion of long-term borrowings	32,427,424	2,550,000

Sub Total	127,397,424	192,405,128
Debenture	219,404,969	164,557,091
Long-term borrowings	983,815,255	472,518,337
Total	1,633,712,976	1,093,188,446

(2) The details of the short-term borrowings as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Lender	used	Annual interest rate at end of current period (%)	End of the current period	End of the previous period
Hana Bank, etc.	General borrowings from banks	3.05 - 5.43	237,745,070	144,718,841
Hana Bank, etc.	Trade receivable discounts	4.55 - 6.36	15,350,258	68,989,049
Shinhan Bank, etc.	Commercial paper (CP)	4.55	50,000,000	50,000,000
Total			303,095,328	263,707,890

(3) The details of the bonds as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	Date of Maturity	Annual interest rate at end of current period (%)	End of the current period	End of the previous period
The 11-2nd public placement bonds	2024.01.31	-	-	80,000,000
The 12-2nd public placement bonds	2024.10.30	-	-	75,000,000
The 13-1st public placement bonds	2024.08.23	-	-	35,000,000
The 13-2nd public placement bonds	2025.02.24	4.61	95,000,000	95,000,000
The 13-3rd public placement bonds	2026.02.24	4.60	70,000,000	70,000,000
The 14-1st public placement bonds	2026.04.24	4.08	50,000,000	-
The 14-2nd public placement bonds	2027.04.26	4.17	100,000,000	-
Total			315,000,000	355,000,000
(Deducted: discount on bonds premium)			(625,031)	(587,781)
(Deducted: current portion of bonds payable)			(94,970,000)	(189,855,128)
Deductions			219,404,969	164,557,091

(4) The details of the long-term borrowings as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Lender	used	Annual interest rate at end of current period (%)	End of the current period	End of the previous period
Hana Bank, etc.	Facility capital loan	4.30 - 4.90	24,660,950	23,127,085
Woori Bank	Facility capital loan	5.09	80,000,000	-
Korea Development Bank, etc.	Acquisition financing	4.59	112,239,984	-
Agricultural Bank of China	General capital loan	3.43 - 5.08	295,341,745	86,371,059

Kookmin Bank	Project financing loan	6.46 - 6.69	504,000,000	365,570,193
Sub Total			1,016,242,679	475,068,337
(Deducted: Current portion of long-term borrowings)			(32,427,424)	(2,550,000)
Deductions			983,815,255	472,518,337

2) Annual repayment plan for borrowings, etc.

The Company manages the risks arising from a lack of funds through the liquidity strategies and plans, and matches the maturities of financial assets and liabilities by considering the maturities of financial instruments and estimates of the operating cash flows.

The undiscounted contractual amounts for repayment plan for each financial liability for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Less than 1 year	2 years or less	5 years or less	Over 5 years	Total
Trade and other payables	307,560,156	-	-	-	307,560,156
Short-term borrowings (Note 2)	306,923,993	-	-	-	306,923,993
Current portion of long-term liabilities (Note 2)	141,819,368	-	-	-	141,819,368
Current liabilities in derivative financial instruments	5,620,854	-	-	-	5,620,854
Current portion of lease liabilities	7,999,427	-	-	-	7,999,427
Other current liabilities (Note 1)	2,877,252	-	-	-	2,877,252
Debenture (Note 2)	-	125,387,584	101,390,333	-	226,777,917
Long-term borrowings (Note 2)	51,716,236	123,129,392	648,944,288	530,759,530	1,354,549,446
Lease liabilities	-	4,504,214	5,430,026	18,359,819	28,294,059
Total	824,517,286	253,021,190	755,764,647	549,119,349	2,382,422,472

(Note 1) Includes deposits received and unpaid dividends.

(Note 2) Includes interest expenses.

<Previous period>

(Unit: KRW one thousand)

Classification	Less than 1 year	2 years or less	5 years or less	Over 5 years	Total
Trade and other payables	246,663,913	-	-	-	246,663,913
Short-term borrowings	263,707,890	-	-	-	263,707,890
Current portion of long-term liabilities	192,550,000	-	-	-	192,550,000
Current liabilities in derivative financial instruments	110,856	-	-	-	110,856
Current portion of lease liabilities	7,901,430	-	-	-	7,901,430
Other current liabilities (Note 1)	5,315,700	-	-	-	5,315,700
Debenture (Note 2)	-	95,000,000	70,000,000	-	165,000,000
Long-term borrowings	-	12,927,084	96,591,253	363,000,000	472,518,337
Lease liabilities	-	3,126,809	4,688,348	3,533,831	11,348,988
Total	716,249,789	111,053,893	171,279,601	366,533,831	1,365,117,114

(Note 1) Includes deposits received and unpaid dividends.

(Note 2) Includes interest expenses.

3) Matters concerning liquidity

As of the end of 2024, the consolidated companies' cash and cash equivalents amount to 542.3 billion KRW. With the well-diversified maturities of borrowings, exposure to liquidity risk is limited.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Cash flows from operating activities	(89,345,890)	146,064,486
Cash flows from investment activities	(157,328,639)	(510,390,210)
Cash flows from financing activities	379,974,961	355,537,871
Net cash flows	133,300,433	(8,787,852)

5. Off-balance sheet transactions

For the matters related to the Company's off-balance sheet transactions, refer to "XI. Additional Investor Protection Disclosures - 2. Contingent Liabilities and Commitments."

6. Other matters required for investment decision making

1) Matters concerning important accounting policies and estimates

- For the matters related to the Company's important accounting policies and estimates, refer to "III. Financial Information - 3. Notes to the Consolidated Financial Statements and 8. Other Finance-Related Matters" or the attached Notes to the Consolidated Audit Report.

2) Matters concerning environment and employees

- For the matters concerning the environment related sanctions and administrative measures, etc., refer to "XI. Additional Investor Protection Disclosures - 3. Sanctions and Regulatory Measures."

- There were no significant employee related changes during the current period, such as the transfer of key personnel.

3) Matters concerning the regulation under laws and regulations

- For an overview of key legal and regulatory issues related to the Company's business, refer to "XI. Additional Investor Protection Disclosures - 3. Sanctions and Regulatory Measures."

4) Matters related to derivatives and risk management policies

- For the matters related to the Company's important accounting policies and estimates, refer to "II. Business Description - 7. Other Reference Information - 1) Derivatives."

V. Audit Report and Internal Control Review

1. External Audit Matters

A. Auditor's name and audit opinion

Business Year	Classification	Auditor	Auditor's opinion	Reasons for modification of the opinion	Significant uncertainties related to going operations	Emphasis of matter	Key matters of audit
The 8th period (current period)	Audit report	Ernst & Young Han Young	Unqualified opinion	-	-	-	Time-specific export sales Valuation of inventories
	Consolidated audit report	Ernst & Young Han Young	Unqualified opinion	-	-	-	Inventory valuation
The 7th period (previous period)	Audit report	Ernst & Young Han Young	Unqualified opinion	-	-	-	Time-specific export sales Valuation of inventories
	Consolidated audit report	Ernst & Young Han Young	Unqualified opinion	-	-	-	Time-specific export sales Valuation of inventories
The 6th period (period before previous period)	Audit report	Ernst & Young Han Young	Unqualified opinion	-	-	-	Time-specific export sales Reviewing the adequacy of C(D)MO contract revenue recognition
	Consolidated audit report	Ernst & Young Han Young	Unqualified opinion	-	-	-	Time-specific export sales Reviewing the adequacy of C(D)MO contract revenue recognition

B. Status of the execution of audit services

(Unit: KRW one million, hour)

Business Year	Auditor	Details	Details of audit contract		Details of actual audit performed	
			Remuneration	Hours	Remuneration	Hours
The 8th period (current period)	Ernst & Young Han Young	Review and audit of the financial statements	490	4,810	490	4,843
The 7th period (previous period)	Ernst & Young Han Young	Review and audit of the financial statements	510	5,100	510	4,950
The 6th period (period before previous period)	Ernst & Young Han Young	Review and audit of the financial statements	480	4,800	480	4,884

(The 8th Audit Period)

Classification	Schedule	
Q4 of the 8th period	Separately reviewed	2025.01.16 - 2025.01.24
	Reviewed on a consolidated basis	2025.02.10 - 2024.02.12
Q3 of the 8th period	Separately reviewed	2024.10.14 - 2024.10.18
	Reviewed on a consolidated basis	2024.10.21 - 2024.10.25
Q2 of the 8th period	Separately reviewed	2024.07.15 - 2024.07.19
	Reviewed on a consolidated basis	2024.07.22 - 2024.07.26
Q1 of the 8th period	Separately reviewed	2024.04.22 - 2024.04.26
	Reviewed on a consolidated basis	2024.04.29 - 2024.05.03

C. Status of the contracts for non-audit services executed with the Auditor

Business Year	Contract execution date	Details of services	Period of service performance	Remuneration for services	Note
The 8th period (current period)	-	-	-	-	-

	-	-	-	-	-
The 7th period (previous period)	-	-	-	-	-
	-	-	-	-	-
The 6th period (period before previous period)	-	-	-	-	-
	-	-	-	-	-

D. Details of the discussions by and between the internal audit organization and the Auditor

Classification	Date	Attendees	Method	Key details discussed
1	2022.05.25	Audit Committee / Accounting Team and External Audit Team	Non-face-to-face meeting	- 2022 audit performance plan
2	2022.08.24	Audit Committee / Accounting Team and External Audit Team	Non-face-to-face meeting	- Review results for the second quarter of the 2022 fiscal year and the status of internal accounting control system audit
3	2022.11.29	Audit Committee / Accounting Team and External Audit Team	Non-face-to-face meeting	- Review results for Q3 2022 and changes in major laws and the accounting environment
4	2023.01.22	Audit Committee / Accounting Team and External Audit Team	Non-face-to-face meeting	- Results of the audit of financial statements and internal audit for the fiscal year of 2022
5	2023.05.24	Audit Committee / Accounting Team and External Audit Team	Non-face-to-face meeting	- 2023 audit performance plan
6	2023.08.23	Audit Committee / Accounting Team and External Audit Team	Non-face-to-face meeting	Review results for Q2 2023 and internal accounting control system audit progress status
7	2023.11.22	Audit Committee / Accounting Team and External Audit Team	Non-face-to-face meeting	Review results for Q3 2023 and internal accounting control system audit progress status
8	2024.02.21	Audit Committee / Accounting Team and External Audit Team	Non-face-to-face meeting	Audit results for 2023 and internal accounting control system audit progress status
9	2024.05.22	Audit Committee / Accounting Team and External Audit Team	Non-face-to-face meeting	- 2024 audit performance plan
10	2024.08.21	Audit Committee / Accounting Team and External Audit Team	Non-face-to-face meeting	Review results for Q2 2024 and internal accounting control system audit progress status
11	2024.11.27	Audit Committee / Accounting Team and External Audit Team	Non-face-to-face meeting	Review results for Q3 2024 and internal accounting control system audit progress status

E. Change of the Auditor

– Not applicable

F. Audit opinion of the Auditor for the subsidiary

– Not applicable

G. Change of the Auditor for the subsidiary

– Not applicable

2. Internal Control System

Our External Auditor conducted an audit of the internal control system as of December 31, 2024. [Audit opinion] As of December 31, 2024, the Company's internal accounting control system is effectively designed and operated from the perspective of materiality in line with the "Conceptual System for the Design and Operation of the Internal Accounting Control System."

The company conducts an annual audit of its internal control system.

Business Year	Auditor	Review opinion and audit opinion	Matters pointed out
The 8th period (current period)	Ernst & Young Han Young	[Audit opinion] As of December 31, 2024, the Company's internal accounting control system is effectively designed and operated from the perspective of materiality in line with the "Conceptual System for the Design and Operation of the Internal Accounting Control System."	Not applicable
The 7th period (previous period)	Ernst & Young Han Young	[Audit opinion] As of December 31, 2023, the Company's internal accounting control system is effectively designed and operated from the perspective of materiality in line with the "Conceptual System for the Design and Operation of the Internal Accounting Control System."	Not applicable

The 6th period (period before previous period)	Ernst & Young Han Young	[Audit opinion] As of December 31, 2022, the Company's internal accounting control system is effectively designed and operated from the perspective of materiality in line with the "Conceptual System for the Design and Operation of the Internal Accounting Control System."	Not applicable

A. Management's assessment of the effectiveness of the internal control system

Business Year	Classification	Operational status report Date of declaration	Evaluation result:	Significant vulnerabilities	Corrective action etc.
The 8th period (current period)	Internal control management system	2025.02.20	It is assessed that the system is effectively designed and operated from a materiality perspective.	-	-
	Internal control management system	-	-	-	-
The 7th period (previous period)	Internal control management system	2024.02.21	It is assessed that the system is effectively designed and operated from a materiality perspective.	-	-
	Internal control management system	-	-	-	-
The 6th period (period before previous period)	Internal control management system	2023.02.22	It is assessed that the system is effectively designed and operated from a materiality perspective.	-	-
	Internal control management system	-	-	-	-

B. Results of the Audit (Committee) assessment of the effectiveness of the internal control system

Business Year	Classification	audit report Date of declaration	Evaluation result:	Significant vulnerabilities	Corrective action etc.
The 8th period (current period)	Internal control management system	2025.03.04	It is assessed that the system is effectively designed and operated from a materiality perspective.	-	-
	Internal control management system	-	-	-	-
The 7th period (previous period)	Internal control management system	2024.03.06	It is assessed that the system is effectively designed and operated from a materiality perspective.	-	-
	Internal control management system	-	-	-	-
The 6th period (period before previous period)	Internal control management system	2023.03.06	It is assessed that the system is effectively designed and operated from a materiality perspective.	-	-
	Internal control management system	-	-	-	-

C. Auditor's opinion on the internal control system (review conclusion)

Business Year	Classification	Auditor	Type (Audit/Review)	Audit opinion or review conclusion	Matters pointed out	The company's response measures
The 8th period (current period)	Internal control management system	Ernst & Young Han Young	Auditor	Unqualified opinion	-	-
	Internal control management system	-	-	-	-	-

The 7th period (previous period)	Internal control management system	Ernst & Young Han Young	Auditor	Unqualified opinion	-	-
	Internal control management system	-	-	-	-	-
The 6th period (period before previous period)	Internal control management system	Ernst & Young Han Young	Auditor	Unqualified opinion	-	-
	Internal control management system	-	-	-	-	-

D. Status of personnel in the internal control management and operations organization, as well as the retention of certified public accountants

Affiliated institution or department	Total number of employees	Certified public accountant qualifications of the personnel responsible for internal control Ownership ratio			The average years of experience of the personnel responsible for internal control
		Internal control Number of responsible personnel (A)	Certified Public Accountant (CPA) qualification Number of holders (B)	Ratio (B/A*100)	
Audit Committee	4	4	0	0	52
Board of Directors Meeting	7	7	0	0	62
Accounting Department	7	7	0	0	37
IT operations Department	23	23	0	0	58
Treasury Department	6	6	0	0	44

E. Experience and training achievements of the accounting personnel

Rank (Position)	Name	Registration status of the accounting personnel	Professional experience (Unit: years, months)		Training achievements (Unit: hours)	
			Years of service	Accounting-related experience	Current period	Cumulative
Internal Accounting Management (Chief Accounting Officer)	Jeong Hae Wook	Registered	23	22	1	5
Accounting personnel	Kim Dong Hui	Registered	7	13	1	5

※ The years of service are based on the employee's date of joining the company.

VI. Corporate Governance Structure

1. Board of Directors

A. Overview of the Board of Directors' structure

As of the date of preparation of the disclosure documents, the Board of Directors of the Company consists of 2 inside directors, 4 Outside Directors, and 1 Non-Executive Director. The Board of Directors operates the Audit Committee, the Outside Director Candidate Nomination Committee, the ESG Committee, and the Human Resources Committee, and other committees such as the Finance Committee can be formed later if needed. Furthermore, the entire Audit Committee consists of Outside Directors.

(Reference date: 2024.12.31)

Number of persons	Inside director	Outside Director	Non-Executive Director
7	Kim Cheol, Ahn Jae Hyun	Park Jungsoo (Note 1), Moon Sunghwan, Cho Honghee, and An Yang Ho	Jeon Kwang Hyun

(Note 1) Choi Sunmee, the Outside Director, was newly appointed at the 7th Annual General Meeting of Shareholders held on March 26, 2024.

(Outside Directors and the status of their changes)

The status of changes from the date of commencement of the business year in which the reference date of preparation of disclosure documents belongs until the date of submission of disclosure documents is as follows.

(Unit: Number of persons)

Number of Directors	Number of Outside Directors	Status of changes in the Outside Directors		
		Appointment	Dismissal	Interim resignation
7	4	1	-	-

※ Outside Director An Yang Ho's term ended at the conclusion of the 7th Regular Shareholders' Meeting held on March 26, 2024, and Outside Director Choi Sunmee was newly appointed.

1) Details of the authorities of the Board of Directors

- The Board decides on the matters provided under the laws or the Articles of Incorporation, matters delegated by the General Meeting of Shareholders, and the important matters related to the Company's basic management policies and business execution.
- The Board oversees the business execution by and of the directors.

Classification	Key details
Authorities of the Board of Directors	1. Matters determined by the authorities of the Board of Directors under the laws (Commercial Act, Financial Investment Services and Capital Markets Act, Fair Trade Act, etc.) and the Articles of Incorporation 2. Matters of major decision-making for the Company (Board Regulations) - Matters concerning the General Meeting of Shareholders - Matters concerning management - Matters Concerning Finance - Matters related to human resource and organizational management - Other important matters of management

B. Matters of important resolutions, etc.

(2024)

Meeting Number	Date convened	Agenda	Inside director		Outside Director					
			Kim Cheol (rate of attendance: 100%)	Ahn Jae Hyun (rate of attendance: 100%)	An Yang Ho(Note 1) (rate of attendance: 100%)	Park Jungsoo (rate of attendance: 100%)	Moon Sunghwan (rate of attendance: 100%)	Cho Honghee (rate of attendance: 100%)	Choi Sunmee (Note 2) (rate of attendance: 100%)	Jeon Kwang Hyun (rate of attendance: 100%)
			Whether approved or disapproved							
1st	2024.01.24	1. Agenda item for the amendment of the Board of Directors' regulations ※ Reported Matters ① Report on individual remuneration (proposal) for CEO	Approved	Approved	Approved	Approved	Approved	Approved	Not applicable	Approved
2nd	2024.02.07	1. Approval of financial statements and business reports for the 7th period ※ Reported Matters ① Report on 2023 Business Performance Results and 2024 Business Plans	Approved	Approved	Approved	Approved	Approved	Approved		Approved
3rd	2024.02.28	1. Health and safety plan for 2024 ※ Reported Matters ① Report on the operation status of the internal accounting control system in 2023 ② Report on the KPIs of the CEO for 2024 ③ Report on the results of the committee activities	Approved	Approved	Approved	Approved	Approved	Approved		Approved
4th	2024.03.06	1. Convening of the regular General Meeting of Shareholders and confirmation of the agenda ※ Reported Matters ① Report on the operation status of the internal accounting control in 2023 ② Progress report following the acquisition of SK Shantou	Approved	Approved	Approved	Approved	Approved	Approved		Approved
5th	2024.03.26	1. Appointment of committee member in the Board of Directors ※ Reported Matters ① Report on evaluation results for Board of Directors' operation in 2023 ② Report on legal compliance activities in 2023 ③ Report on the results of the committee activities	Approved	Approved	Not applicable	Approved	Approved	Approved	Approved	Approved
6th	2024.04.24	※ Reported Matters ① Report on SK chemicals' China business dynamics ② Report on Q1 management performance and Q2 management plan	-	-		-	-	-	-	-
7th	2024.05.22	1. Agenda item for the signing of building lease agreement (amendment) (Note 3) 2. Agenda item for changes in the committee and DX Lab operational agreement, etc. (Note 3) ※ Reported Matters ① Report on 2023 Risk Management Results and 2024 Operation Plan ② Report on the progress of key strategic initiatives for SKBS	Approved Approved	Approved Approved		Approved Approved	Approved Approved	Approved Approved	Approved Approved	Absence from the vote in favor
8th	2024.06.26	1. Amendment to Audit Committee Regulations 2. Agenda item for the transaction with SK gas (Note 3) ※ Reported Matters ① Progress of the sale of the chemical subsidiary in Suzhou, China ② Report on the investment in the installation of CP-2 ECOZEN dedicated facilities	Approved Approved	Approved Approved		Approved Approved	Approved Approved	Approved Approved	Approved Approved	Approved Approved
9th	2024.07.24	1. Interim dividend(Dividend amount, record date) 2. Purchase of Liability Insurance for Executives 3. Agenda item for the donation of Jigwanseoga ※ Reported Matters ① SK Chemicals' Operation Improvement ② First-half business performance and second-half plans ③ CEO first-half KPI review	Approved Approved Approved	Approved Approved Approved		Approved Approved Approved	Approved Approved Approved	Approved Approved Approved	Approved Approved Approved	Approved Approved Approved

10th	2024.08.28	Amendment of the development service contract with SK plasma (Note 3) ※ Reported Matters ① Status of business operations for subsidiary (MU) ② Progress of the recycling business ③ Plan regarding visits to Ulsan Plant	Approved	Approved		Approved	Approved	Approved	Approved	Approved
11th	2024.09.26	※ Reported Matters ① Project status and O/I tasks ② Progress of the 2024 SHE (Safety, Health, and Environment) upgrade initiatives ③ Progress of the Ulsan plant DT (Digital Transformation) initiatives	-	-		-	-	-	-	-
12th	2024.10.30	Amendment to Audit Committee Regulations Revision of compliance control standards Agenda item for providing payment guarantees for the overseas subsidiary (SK Shantou) ※ Reported Matters ① Report on the Bio-Polyol (PO3G) business ② Report on 3rd quarter 2024 business performance and 4th quarter plans	Approved Approved Approved	Approved Approved Approved		Approved Approved Approved	Approved Approved Approved	Approved Approved Approved	Approved Approved Approved	Approved Approved Approved
13th	2024.11.26	※ Reported Matters ① Key medium-term tasks and projections ② Results of the 2024 Culture Survey ③ Climate change risks and opportunities	-	-		-	-	-	-	-
14th	2024.12.10	Manufacturing and Consignment Agreement with SK plasma (Note 3) Amendment to Internal Accounting Management Regulations Approval of limit for corporate bond issuing ※ Reported Matters ① 2025 CEO KPI ② Report on the results of the Human Resources Committee ③ 2025 CEO individual compensation	Approved Approved Approved	Approved Approved Approved		Approved Approved Approved	Approved Approved Approved	Approved Approved Approved	Approved Approved Approved	Approved Approved Approved

(Note 1) Outside Director Ahn Yang Ho's term expired at the conclusion of the 7th Annual General Meeting of Shareholders held on March 26, 2024.

(Note 2) Outside Director Choi Sunmee was appointed at the 7th Annual General Meeting of Shareholders held on March 26, 2024.

(Note 3) This matter is related to the approval of related-party transactions. For further details, please refer to the information below.

Target company	Major shareholders	Date of resolution	Matters of approval
SK Plasma	SK Discovery Ltd.	2024.05.22	1. Agenda item for the signing of building lease agreement (amendment) - Amendment of the lease agreement previously entered into with the tenant, SK plasma - Change in the office lease location and area (increase) for Eco Lab 3rd floor, total area of approximately 1,685 m ² (increase of approximately 545 m ²) - Inclusion of pre-investment facility construction costs in the rent (KRW 615 million, including financial interest), to be repaid over 5 years
SK discovery	Choi Chang Won	2024.05.22	1. Agenda item for changes in the committee and DX Lab operational agreement, etc. - Approval of the change in the parties to the agreement and the participants in the committee and DX Lab agreement due to the change in participants (addition of newly established SK eternix under the spin-off of SK D&DS) - Change effective date: June 1, 2024 - Estimated amount of the company's share: Committee: KRW 330 million, DX Lab: KRW 1.27 billion
SK gas Co., Ltd.	SK Discovery Ltd.	2024.06.26	1. Transaction with SK gas (Consulting Service Agreement) - Purpose/Scope: Consulting service agreement for the domestic/global market analysis of SK Chemicals' SKYBON/SKYPEL businesses and the derivation of OE tasks and strategic directions. - Contract period July 1, 2024 - September 6, 2023 (approximately 10 weeks) - Service fee: Approximately KRW 266 million
SK plasma	SK discovery Ltd.	2024.08.28	1. Change of the development service contract with SK plasma - Partial scope change of the generic product development service agreement signed between SK Chemicals and SK Plasma in March 2022
SK plasma	SK discovery Ltd.	2024.12.10	1. Manufacturing and Consignment Agreement with SK plasma - Purpose/Scope: Contract for the manufacturing and consignment of generic pharmaceuticals between SK chemicals and SK plasma

			- Contract period 10 years from the date of the agreement

※ These are the details of the agenda of the board held from the date of the start of the business year in which the reference date of the preparation of disclosure documents belongs until the reference date.

※ Matters of reference <Evaluation Results of the Board activities in 2024 (self-evaluation)>

In January 2025, an evaluation of Board activities was conducted targeting Outside Directors, and the improvement needs revealed as a result of the evaluation will be actively reflected.

- Evaluation cycle: Conducted annually at the beginning of the year (covers the BOD's operations up to the end of the previous business year)
- Evaluation method and who conducts the evaluation: Individually evaluated by all Outside Directors (4) using a 6-item, 25-question questionnaire (5-point scale)
- Overall evaluation results: 4.9 points (out of 5 points)

※ Evaluation items

Classification	Evaluation items (25 in total)	Evaluation results (points)
Structure of the Board	- Adequacy of size	4.9
	- Expertise/experience	
	- Independence	
Role of the Board	- Establish the company vision and strategy	4.9
	- Adequacy of the scope of authorities	
	- Advice to the management	
	- Enhance corporate value	
	- Risk management	
Responsibility of the Board	- Supervision of management performance	4.9
	- Confidentiality	
	- Corporate governance	
	- Corporate social responsibility	
Operation of the board	- Adequacy of the number of meetings held/agendas	4.8
	- Usefulness of management data	
	- Participation of directors	
	- Adequacy of discussions	
	- Provision of education	
	- Information collection	
Structure of the Committee	- Adequacy of the structure	4.9
	- Structure of members	
Roles/operation of the Committees	- Adequacy of roles	5.0
	- Adequacy of the number of meetings held	
	- Information provision and adequacy of discussions	
Overall evaluation results		4.9

C. Committees within the Board of Directors

1) Audit Committee

As for the Audit Committee, refer to “VI. Corporate Governance Structure - 2. Audit System.”

2) Outside Director Candidate Nomination Committee

As for the Outside Director Candidate Nomination Committee, refer to “VI. Corporate Governance Structure - 1. Board of Directors - D. Independence of the Directors.”

3) ESG Committee

- Chairman: Outside Director Park Jungsoo
- Structure of the Committee: one Inside director (Ahn Jae Hyun), two Outside Directors (Park Jung Soo and Choi Sunmee) - Purpose of installation and scope of authority: Conduct advance review of the key ESG related matters across business management
- Details of activities

(2024)

Name of Committee	Date convened	Agenda	Whether approved	Park Jungsoo (rate of attendance: 100%)	An Yang Ho (Note 1) (rate of attendance: 100%)	Ahn Jae Hyun (rate of attendance: 100%)	Choi Sunmee (Note 2) (rate of attendance: 100%)
Whether approved or disapproved							
ESG Committee	2024.01.31	※ Reported Matters Report on 2023 business performance and 2024 business plan	Reported	-	-	-	Not applicable
	2024.02.16	※ Reported Matters ① Report on the construction of Jigwanseoga	Reported	-	-	-	
	2024.04.09	※ Reported Matters ① Report on the materiality assessment results for 2023 ② Analysis of ESG evaluation results and identification of improvement tasks Costs ③ Report on the publication of TCFD Report 2023	Reported	-	Not applicable	-	-
	2024.06.26	※ Reported Matters ① Publication of the Sustainability Management Report	Reported	-		-	-
	2024.12.18	※ Reported Matters ① 2024 ESG performance and 2025 plans ② 2024 human rights impact assessment and publication of the report	Reported	-		-	-

(Note 1) Outside Director Ahn Yang Ho's term expired at the conclusion of the 7th Annual General Meeting of Shareholders held on March 26, 2024.

(Note 2) Outside Director Choi Sunmee was appointed at the 7th Annual General Meeting of Shareholders held on March 26, 2024.

4) Human Resources Committee

- Chairman: Outside Director Moon Sunghwan
- Structure of the Committee: two Outside Directors (Moon Sunghwan and Cho Honghee), and one Non-Executive Director (Jeon Kwang Hyun)
- Purpose of establishment & authorities: Evaluating the CEO and whether to retain him or her, reviewing the appropriateness of the compensation of the Inside Directors, and reviewing the results of the evaluation of key executives and the determination of compensation levels
- Details of activities

(2024)

Name of Committee	Date convened	Agenda	Whether approved	Moon Sunghwan (rate of attendance: 100%)	Cho Honghee (rate of attendance: 100%)	Jeon Kwang Hyun (rate of attendance: 100%)
Whether approved or disapproved						
Human Resources Committee	2024.01.23	1. Review of the CEO's individual remuneration ※ Reported Matters ① Report on the individual remuneration of key executives	Approved	Approved	Approved	Approved
	2024.02.21	1. Review of CEO KPIs for 2024	Reported	-	-	-
			Approved	Approved	Approved	Approved

	2024.07.23	1. Report on the CEO KPI review for first half of 2024	Approved	Approved	Approved	Approved
	2024.12.04	Review of CEO evaluation for 2024 Review of CEO KPIs for 2025 Review of whether the CEO will remain in office ※ Reported Matters ① 2024 key executive evaluation ② Organizational restructuring and executive appointments	Approved Approved Approved Report Contents	Approved Approved Approved - -	Approved Approved Approved - -	Approved Approved Approved - -
	2024.12.10	Review of the CEO's individual remuneration ※ Reported Matters ① Report on the individual remuneration of key executives	Approved Reported	Approved -	Approved -	Approved -

D. Independence of Directors

1) Independence standards for the election of Directors, etc.

The candidates for Directors to be appointed at the shareholders' meeting are selected by the Board of Directors (Inside Directors) and the Outside Director Nomination Committee (Outside Directors) and are confirmed as agenda items to be submitted to the shareholders' meeting. The Outside Director Candidate Nomination Committee (3 outside directors) considers the candidates' careers and fields of expertise to enable balanced decision-making and management oversight. It also examines whether they fall under any of the disqualifying conditions provided in relevant regulations, such as the Commercial Act and its Enforcement Decree, and finally, makes recommendations to the General Meeting of Shareholders.

2) Background of appointment of directors, referrers, etc.

Name of position	Name	Referrer	Field of activity (task in charge)	Transaction with the Company	Relationship with the largest shareholder or major shareholders	Term of appointment	Whether retained for another term of office (number of reappointments)
Inside director	Kim Cheol	Board of Directors Meeting	CEO	Not applicable	Affiliate's executive	2026.03	Y (2)
	Ahn Jae Hyun	Board of Directors Meeting	CEO		Affiliate's executive	2026.03	N
Outside Director	Park Jungsoo	Outside Director Candidate Nomination Committee	Outside Director (member of the Audit Committee)		-	2025.03	Y (1)
	Moon Sunghwan	Outside Director Candidate Nomination Committee	Outside Director (member of the Audit Committee)		-	2026.03	Y (1)
	Cho Honghee	Outside Director Candidate Nomination Committee	Outside Director (member of the Audit Committee)		-	2026.03	Y (1)
	Choi Sunmee (Note 1)	Outside Director Candidate Nomination Committee	Outside Director (member of the Audit Committee)		-	2027.03	N
Non-executive director	Jeon Kwang Hyun	Board of Directors Meeting	Non-Executive Director		Largest shareholder / executive	2026.03	N

Name	Background of appointment
Kim Cheol	Having joined SK Corp., served as Head of the Oil Development Division at SK innovation, and Head of the Resin Business Division at SK chemicals, he is currently serving as the CEO of SK chemicals. He has played a significant role in the business growth of each company, and based on his extensive experience and capabilities, it is deemed that he will greatly contribute to the execution of the Company's new business, and thus he has been recommended.
Ahn Jae Hyun	The candidate, Ahn Jae Hyun, served as CEO of SK D&D, Head of SK Gas Management Support Division and Chairman of the New Growth Energy Committee, as well as CEO of SK ecoplant and CEO of SK discovery, leading various investments and M&A. In particular, he successfully transformed the green and new energy business structure of SK ecoplant. He was nominated in the hope that his experience will help build our green materials, bio-centric portfolio and accelerate ESG management.
Park Jungsoo	Currently a professor at the Department of Economics at Sogang University, and actively engaged as a policy advisor and evaluation committee member for government agencies, his extensive experience and expert insight are expected to play a key role in decision-making at SK chemicals, and thus he has been appointed.
Moon Sunghwan	As a corporate management expert who has served as the CEO of a listed company for over 10 years, based on his knowledge and extensive experience, it is expected that he will enhance diversity and provide new perspectives in major decision-making processes. Given his professional insight and capabilities, he is expected to contribute to the growth and development of the company, and thus he has been recommended as an Outside Director candidate.
Cho Honghee	With over 30 years of experience in tax affairs at the National Tax Service and expertise in the field of taxation, along with years of serving as an Outside Director and Audit Committee member at a listed company, it is expected that he will enhance the professionalism and diversity of the Board of Directors and Audit Committee. Given his professional insight and capabilities, he is anticipated to contribute to the growth and development of the company, and thus he has been recommended as an Outside Director candidate.
Choi Sunmee	Currently a professor at the Department of Business Administration at Yonsei University, she is expected to contribute to the company's growth based on her extensive insight and experience gained through various activities both domestically and internationally. Additionally, it is anticipated that she will play a significant role in strengthening the diversity of the Board of Directors and ensuring the transparency/independence of the Audit Committee, and thus she has been recommended.

Jeon Kwang Hyun	Having joined SK chemicals, served as the President of Life Science Biz., and later as the CEO of SK chemicals, he has made significant contributions to the performance improvement and growth of various business sectors. Based on his practical experience and outstanding capabilities, it is expected that he will provide valuable business insights and contribute to future performance, and thus he has been recommended.

(Note 1) Choi Sunmee, the Outside Director, was appointed at the 7th Annual General Meeting of Shareholders held on March 26, 2024.

3) Status of the establishment and structure of the Outside Director Candidate Nomination Committee

(Reference date: 2024.12.31)

Name	Whether an Outside Director	Note
Cho Honghee	O	- Outside Directors comprise 100% of the total membership of the Committee. - The requirement that the Committee should be composed of 50% or more of Outside Directors is met (Article 542-8 of the Commercial Act).
Park Jungsoo	O	
Choi Sunmee	O	

4) Details of the key activities of the Outside Director Candidate Nomination Committee

(2024)

Name of Committee	Date convened	Agenda	Whether approved	An Yang Ho (Note 1) (rate of attendance: 100%)	Cho Honghee (rate of attendance: 100%)	Park Jungsoo (rate of attendance: 100%)	Choi Sunmee (Note 2) (rate of attendance: 100%)
				Whether approved or disapproved			
Outside Director Candidate Nomination Committee	2024.02.07	1. Nomination of Outside Director candidates	Approved	Approved	Approved	Approved	Not applicable
Outside Director Candidate Nomination Committee	2024.03.26	1. Appointment of the Chairperson of the Outside Director Recommendation Committee	Approved	Not applicable	Approved	Approved	Approved

(Note 1) Outside Director Ahn Yang Ho's term expired at the conclusion of the 7th Annual General Meeting of Shareholders held on March 26, 2024.

(Note 2) Outside Director Choi Sunmee was appointed at the 7th Annual General Meeting of Shareholders held on March 26, 2024.

E. Expertise of the Outside Directors

1) Status of the Outside Directors' support organization

Name of department (team)	Number of employees	Position (number of years of continued service)	Details of key activities
Secretariat of the Board of Directors	2	Executives (4), Team leaders (13)	Providing assistance with the execution of duties for Outside Directors

The support organizations within the Company provide assistance to the Outside Directors to ensure that they can perform their professional duties at the Board and the committees within the Board. SK Chemicals provides materials in advance so that the contents of the relevant agenda can be fully reviewed before BOD and Committee meetings are held, and if necessary, we hold a separate briefing session, and provide information on other major internal issues from time to time.

2) Status of the implementation of education and training for the Outside Directors

Date of education and training	Subject of the implementation of education and training	Outside Directors in attendance	Reason for absence	Key details of education and training
2024.04.11	SK SUPEX Council	Choi Sunmee	Training for specific Outside Directors	New Outside Director Workshop for the Group (Introduction to SK Group and Management Agenda, Best Practices of the Board of Directors) *Targeted at newly appointed Outside Directors of group member companies in 2024
2024.04.09	SK Chemicals	Choi Sunmee	Training for specific Outside Directors	New Outside Director Orientation (Company Overview, Corporate and Key Business Unit Presentations) - Corporate Strategy, Green Materials Business, Pharma Business, Functional Materials Business, Business Development, Board of Directors Operations, etc.
2024.04.23	SK chemicals	Moon Sunghwan, Cho Honghee, Park Jungsoo, Choi Sunmee	-	Visit to the China Chinaplas Exhibition - Visit to booths of global companies and industry peers, understanding trends in the recycling business, etc.

2024.04.24	SK chemicals	Moon Sunghwan, Cho Honghee, Park Jungsoo, Choi Sunmee	-	Inviting a Chinese expert (Professor from Zhengzhou University) to provide a detailed explanation on China's political/economic situation and industrial policies, followed by discussions from the perspective of the Company's business operations in China.
2024.05.09	SK discovery	Moon Sunghwan, Cho Honghee, Park Jungsoo, Choi Sunmee	-	Business strategy and mid-to-long-term plans of SK Discovery and its subsidiaries
2024.06.03	Listed Companies Association	Park Jungsoo	Training for specific Outside Directors	Training for specific Outside Directors Training for Outside Directors of listed companies (Online VOD) - Key roles, legal responsibilities, and related issues in performing duties as an Outside Director
2024.08.19	SK SUPEX Council	Choi Sunmee	Training for specific Outside Directors	Attendance at the Icheon Forum: Exploring the direction of SK's transformation in the AI era
2024.09.26	SK chemicals	Moon Sunghwan, Cho Honghee, Park Jungsoo, Choi Sunmee	-	Visit to the Ulsan Plant - Inspection of key business production facilities - Factory project inspection - Subsidiary (MU) combined heat and power plant construction site inspection
2024.10.18	SK SUPEX Council	Moon Sunghwan	Training for specific Outside Directors	Board Chairman Workshop - Sharing of key group management tasks - Presentation and discussion on the direction and path of Board 2.0 - Discussion on the roles of the Advisory Board and the Board of Directors
2024.11.07	SK SUPEX Council	Moon Sunghwan, Cho Honghee, Choi Sunmee	Training for specific Outside Directors	SK Directors' Summit 2024 - Sharing of key group management tasks and CEO seminar results - The present and future of the group (future growth, O/I cases) - Discussion on the Board's strategy oversight and risk oversight - Evolution of the Board's role centered on business oversight
2024.11.26	SK chemicals	Moon Sunghwan, Cho Honghee, Park Jungsoo, Choi Sunmee	-	Climate change risks and opportunities (Expert invited: Kim Seong Woo, Director of Kim & Chang Law Firm)

2. Audit System

A. Whether the Audit Committee (Auditor) is established, and how it is structured

2) Establishment of the Audit Committee

Composed of 3 or more directors who satisfy the qualifications according to the relevant laws and the Articles of Incorporation (however, the number of Outside Directors must be two thirds or greater of the total Committee members)

(Reference date: 2024.12.31)

Whether established	Method of organization	Note
Established	4 people (All of whom are Outside Directors)	Performing business audits and accounting audits of the Company

Purpose of establishing the Audit Committee	The Audit Committee was established in compliance with Article 415-2 of the Commercial Act, and composed of at least 3 Outside Directors in accordance with the provisions of Article 415-2 Paragraph 2 of the Commercial Act.
Authorities / Responsibilities	- Audit the Directors' execution of their duties - Request Directors to report on business - Investigate the Company's business status and properties' status
Operational plan	Accounting and business audits are conducted on a regular basis by applying appropriate procedures such as reviewing, collation, and due diligence of related documents such as books, financial statements, and annexed specifications. And reports are made and corrective actions are taken in a timely manner for the matters pointed out.

3) Personal information of the Audit Committee members and whether they are Outside Directors

Name	Outside Director	Professional experience	Accounting and financial experts related		
			Whether applicable	Type of expert	Relevant experience
Park Jungsoo	Yes	Seoul National University/Economics, Seoul National University/Economics (Master), Stanford University/Economics (PhD) Current) Professor of Economics, Sogang University Current) Dean of the College of Economics, Sogang University	-	-	-
Moon Sunghwan	Yes	Seoul National University/Business Administration, Helsinki School of Economics, Finland (MBA) Former) CEO and President of Huvis Former) CEO and President of Samyang Corporation	-	-	-
Cho Honghee	Yes	Sungkyunkwan University/International Trade University of Bath, UK/Tax Studies (Master) Former) Commissioner of the Seoul Regional Tax Service Former) Outside Director at Daegyo and Celltrion Current) Advisor at Bae, Kim & Lee LLC Current) Outside Director of Meritz Financial Group	Yes	Person with experience in financial institutions, government, and securities related institutions, etc. (Type 4)	- 1996 - 1997, Deputy Director, Corporate Tax Department, National Tax Service - 2002 - 2004, Head of Investigation Bureau 2, Investigation Bureau 4 (for Corporate Taxation and International Investigation), Seoul Regional Tax Service - 2009 - 2009, Director General, Corporate Tax Bureau, National Tax Service (in charge of corporate tax litigations and authoritative interpretations) - 2010 - 2010 Commissioner of Seoul Regional Tax Office ▶ Equivalent to 5 years or longer in total for the combination of the periods of service
Choi Sunmee	Yes	Yonsei University/English Literature M.A./Ph.D., Cornell University, USA Former) Vice President for International Affairs, Yonsei University Former) Dean of the College of Business Administration, VinUniversity, Vietnam Current) Professor of Business Administration, Yonsei University	-	-	-

B. Independence of the Audit Committee members

1) Selection criteria

Key details of the selection criteria	Whether selection criteria are satisfied	Related laws and regulations
Composed of 3 or more Directors	Satisfied (4 people)	Article 415-2 Paragraph 2 of the Commercial Act
Two thirds or more of the Committee Members are Outside Directors	Satisfied (All of them are Outside Directors)	
1 or more members are accounting or finance related experts	Satisfied (Director Cho Honghee)	Article 542-11 Paragraph 2 of the Commercial Act
Chair of the Audit Committee is an Outside Director	Satisfied (Director Cho Honghee)	
Other requirements for disqualification (related parties of the largest shareholder, etc.)	Satisfied (Not applicable)	Article 542-11 Paragraph 3 of the Commercial Act

2) Background of appointment

(Reference date: 2024.12.31)

Name	Background of appointment	Referrer	Term of appointment	Whether retained for another term of office (number of reappointments)	Relationship with the largest shareholder or major shareholders
Park Jungsoo	Park Jeong-su is currently a professor of Economics at Sogang University and was appointed as he is expected to actively engage with the Audit Committee based on his diverse experiences and professional insight, including extensive activities as a policy advisor and evaluation member for government agencies. He was appointed in the belief that he will be very helpful in implementing the Company's new businesses.	Outside Director Candidate Nomination Committee	2022.03.28 - 2025.03.28	1 time	Unrelated

Moon Sunghwan	Moon Seong-hwan was appointed based on his knowledge and wealth of experience as a corporate management expert who has served as the CEO of a listed company for over 10 years. He is expected to enhance the diversity and present new perspectives in making major decisions, and will also be able to contribute to the growth and development of the Company through his professional insight and competencies, along with his professional insight and skills.	Outside Director Candidate Nomination Committee	2023.03.28 - 2026.03.28	1 time	Unrelated
Cho Honghee	Jo Hong-hui has been appointed because in addition to his knowledge and wealth of experience as an expert in the field of taxation (particularly corporate) for more than 30 years at the National Tax Service, he has served as an Outside Director and Audit Member of a listed company for many years, and will be able to contribute to the growth and development of the Company through his professional insight and competences, along with his professional insight and skills.	Outside Director Candidate Nomination Committee	2023.03.28 - 2026.03.28	1 time	Unrelated
Choi Sunmee (Note 1)	She is a professor at the Department of Business Administration at Yonsei University and, based on her extensive insights and experience through various activities both domestically and internationally, she is expected to contribute to the company's growth. Additionally, she is deemed capable of playing a significant role in strengthening the diversity of the Board and ensuring the transparency and independence of the Audit Committee, and therefore, she is recommended for the position.	Outside Director Candidate Nomination Committee	2024.03.26 - 2027.03.26	-	Unrelated

(Note 1) Outside Director Choi Sunmee was appointed at the 7th Annual General Meeting of Shareholders held on March 26, 2024.

C. Whether internal devices are prepared for access to the management information needed for audit work of the Audit Committee - attendance at the Board

- Can audit the Company's accounting and business in accordance with relevant laws and regulations and Articles of Incorporation
- Can request data and review them as needed
- Can request subsidiaries to report on business as needed

D. Details of the key activities of the Audit Committee

(2024)

Date convened	Agenda	Whether approved	Name of Outside Director				
			An Yang Ho(Note 1) (rate of attendance: 100%)	Park Jungsoo (rate of attendance: 100%)	Moon Sunghwan (rate of attendance: 100%)	Cho Honghee (rate of attendance: 100%)	Choi Sunmee (Note 2) (rate of attendance: 100%)
			Whether approved or disapproved				
2024.01.24	1. Establishment of compliance details, procedures and evaluation standards for External Auditor appointment	Approved	Approved	Approved	Approved	Approved	Not applicable
2024.02.07	1. Selection of External Auditors for the 2024–2026 fiscal years	Approved	Approved	Approved	Approved	Approved	
2024.02.21	1. Internal audit plan	Approved	Approved	Approved	Approved	Approved	
	※ Reported Matters						
	① Report on the operation status of the internal accounting control system in 2023	Report Contents	-	-	-	-	
	② Report on the audit results for the fiscal year 2023 (External Auditor)		-	-	-	-	
2024.02.28	1. Approval of the report on the evaluation results of the internal accounting management system for the year 2023 2. Confirmation of the audit report	Approved Approved	Approved Approved	Approved Approved	Approved Approved	Approved Approved	
2024.03.06	1. Confirmation of the agenda of the regular meetings of shareholders and the results of document investigation	Approved	Approved	Approved	Approved	Approved	
2024.03.21	※ Reported Matters						
	① Report on the plan for the start of the management diagnosis for SK Chemicals	Reported	-	-	-	-	
2024.04.24	1. Agenda item for the signing of building lease agreement (amendment)	Approved	Not applicable	Approved	Approved	Approved	Approved
	※ Reported Matters						
	① Report on compliance with the criteria for appointing External Auditors in 2022	Reported		-	-	-	-
2024.05.22	1. Agenda item for changes in the committee and DX Lab operational agreement, etc.	Approved		Approved	Approved	Approved	Approved

	※ Reported Matters ① Report on the amendment of the audit committee regulations ② Report on the audit results of External Auditors for the first quarter	-		-	-	-	-
2024.06.26	1. Agenda item for the transaction with SK gas ※ Reported Matters ① Report on the follow-up actions after the management diagnosis	Approved		Approved	Approved	Approved	Approved
2024.07.24	1. Report on the plan for the evaluation of internal accounting design/operation for 2024	-		-	-	-	-
2024.08.28	※ Reported Matters ① Report on trends ② Report on the ethical management & internal audit activities in the first half ③ Report on the audit review by the External Auditor for the first half of 2024	-		-	-	-	-
2024.11.27	1. Amendment to Internal Accounting Management Regulations ※ Reported Matters ① Report on the process of designating the External Auditor ② Report on the activities of ethics management and internal audit for the second half of the year ③ Report on the quarterly review results of the External Auditor	Approved		Approved	Approved	Approved	Approved

(Note 1) Outside Director Ahn Yang Ho's term expired at the conclusion of the 7th Annual General Meeting of Shareholders held on March 26, 2024.

(Note 2) Outside Director Choi Sunmee was appointed at the 7th Annual General Meeting of Shareholders held on March 26, 2024.

E. Status of the implementation of education and training for the Audit Committee

Date of education and training	Subject of the implementation of education and training	Audit Committee members in attendance	Reason for absence	Key details of education and training
2022.07.27	Samil PwC	Cho Honghee, Moon Sunghwan, Park Jungsoo An Yang Ho	-	Report on progress of establishment of the consolidated internal accounting control system and trends in internal accounting
2023.08.23	Samil PwC	Cho Honghee, Moon Sunghwan, Park Jungsoo An Yang Ho	-	Progress on the establishment of the consolidated internal accounting management system and internal accounting trends
2024.08.28	Samil PwC	Cho Honghee, Moon Sunghwan, Park Jungsoo Choi Sunmee	-	Internal accounting trends (Samil Accounting Corporation) Amendments to internal accounting regulations and progress on preparing the consolidated internal accounting system

F. Status of the support organizations of the Audit Committee

Name of department (team)	Number of employees	Position (number of years of continued service)	Details of key activities
Secretariat of the Board of Directors	2	Executives (4), Team leaders (13)	Operation of the Audit Committee
CP Team	3	Team Leader (20), Manager (4-19)	Fair competition, marketing activity management, inspection, and whistleblower investigation

G. Matters concerning the compliance officer

Name	Date of birth (year and month)	Rank / Position	Professional experience

Yang Hui Jin	1975.07	Head of the Legal Office	- 1997 B.S. in Biochemistry, Yonsei University - 2004 Passed the 46th bar exam (training institute 36th class) - 2007 - 2009 Seoul Central District Court Judge - 2009 - 2010 Seoul Western District Court Judge - 2010 - 2022 Partner Attorney, Law Firm Lee & Ko - 2012 - 2013 FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP (Reston, VA) - 2014 American Univ. Washington College of Law, LL.M. - Current) Head of the Legal Office of SK Chemicals

H. Status of the support organizations such as compliance officer

Name of department (team)	Number of employees	Position (number of years of continued service)	Details of key activities
Legal Affairs Office (legal affairs)	6	Team Leader (1), Manager (1-9)	Compliance education, compliance check, contract review, legal advice
CP Team	3	Team Leader (20), Manager (4-19)	Fair competition, marketing activity management, inspection, and whistleblower investigation

I. Details of key activities of the compliance officer and their handling results

Date of check	Details	Results
Always	※ Carried out a program for dissemination of the ethical management culture ※ Operated the ethical management consultation/report system ※ Established CP compliance system ※ CP operation process management ※ Prevention and response to unfair trade issues in the pharmaceutical industry - Real-time monitoring of marketing activities in the Pharma business (2024 SFE / 48,934 cases) - Managed pre- and post-reporting to Korea Pharmaceutical and Biotechnology Association / Korea Medical Device Association - Fair Trade Working Group activities to identify industry trends related to fair competition (once a month) - Continuously improved corporate policy / system (SFE) to prevent human error ※ Responded to requests for a report of expenditures for economic benefits provided to health care professionals ※ Responded to CP requirements related to product introduction and contract maintenance - Responded to periodic reports and obligations for partner companies (Janssen, Lilly, Takeda, COVIS, etc.) - Janssen Compliance Audit Improvement Measures Report (3rd party management system) (November)	Nothing significant to report
2024.01	- 2024 Fair Trade Compliance Commitment Declaration (Business Representative)	Nothing significant to report
2024.01	- Announcement of the 2024 Compliance Operation Plan	Nothing significant to report
2024.01	- Establishment of Fair Trade Compliance Regulations / Guidelines for Pharma Business Marketing	Nothing significant to report
2024.02	- Collection of Ethical Management Practice Pledge from all positions in Pharma	Nothing significant to report
2024.02	- Amendment of the marketing standard contract to include fair competition clauses (exhibitions, advertisements, etc.)	Nothing significant to report
2024.03	- Preparation and retention of the 2023 economic benefits expenditure report	Nothing significant to report
2024.04	- Conducting due diligence related to the Lilly re-contracting	Nothing significant to report
2024.04	- Takeda compliance monitoring and implementation of corrective actions for findings	Nothing significant to report
2024.04	- Establishment of the personal data collection and consent procedure for sample provision by Mother's Pharma	Nothing significant to report
2024.04	- Revision of Partner Company CP Guidelines Version 2.5	Nothing significant to report
2024.05	- Report on the amendment of the audit committee regulations	Nothing significant to report

2024.05	- Conducting Janssen Global Compliance Audit	Nothing significant to report
2024.06	- Amendment of Pharma Business Marketing Fair Trade Compliance Guidelines (Ver 1.1)	Nothing significant to report
2024.06	- Conducting Lilly Korea Global Compliance Audit	Nothing significant to report
2024.06	- Implementation of CP management process for third-party vendors (wholesalers)	Nothing significant to report
2024.06	- Establishment of new operating standards for pharmaceutical distribution transactions	Nothing significant to report
2024.06	- Conducting the first-half regular pharmaceutical industry CP training for the Pharma marketing department	Nothing significant to report
2024.08	- Submission of the 2023 economic benefits expenditure report to the Health Insurance Review and Assessment Service (HIRA)	Nothing significant to report
2024.08	- Conducting an ethical management practice survey for the Pharma business	Nothing significant to report
2024.09	- Conducting an ethical management workshop for the Pharma business	Nothing significant to report
2024.09	- Conducting a self-regulation system inspection for the Pharma business	Nothing significant to report
2024.10	- Reporting of pharmaceutical promoters (CSO) related to Co-Promotion	Nothing significant to report
2024.11	- Conducting face-to-face training on the CP whistleblower channel (MPRS) for all departments in the Pharma business	Nothing significant to report
2024.12	- Conducting the second-half regular pharmaceutical industry CP training for the Pharma marketing department	Nothing significant to report

3. General Meeting of Shareholders

A. Status of the voting system

(Reference date: 2024.12.31)

Type of voting system	Concentrated voting system	Written voting system	Electronic voting system
Whether introduced	Excluded	Unintroduced	Introduced
Whether executed	-	-	7th Annual General Meeting of Shareholders (2023) 6th Annual General Meeting of Shareholders (2022) 5th Annual General Meeting of Shareholders (2021)

※ As of the date of submission of the disclosure documents, the Company has introduced and implemented a system for recommending voting via proxy, and the methods of delegation include “delivery in person,” “postal mail or facsimile transmission,” and “sending the Letter of Authority form via email.”

B. Minority shareholders' rights

The Company has never seen the minority shareholders' rights exercised during the period subject to disclosure.

C. Competition for the management rights

During the period subject to the disclosure, the Company has never seen any competition for the Company's management rights.

D. Status of the voting rights

(Reference date: 2024.12.31)

(Unit: stocks)

Classification	Type of stock	Number of shares	Note
Total number of issued shares (A)	Common stocks	17,253,783	-
	Preferred stocks	2,115,429	-
Number of shares without voting rights (B)	Common stocks	30,857	Treasury stocks
	Preferred stocks	2,115,429	Treasury stocks included

Number of shares excluded from voting rights under the Articles of Incorporation (C)	Common stocks	-	-
	Preferred stocks	-	-
Number of shares whose voting rights have been restricted by other laws (D)	Common stocks	186,808	Restrictions on the voting rights of public interest corporations
	Preferred stocks	-	-
Number of shares whose voting rights have been reinstated (E)	Common stocks	-	-
	Preferred stocks	-	-
Number of stocks whose voting rights may be exercised (F = A - B - C - D + E)	Common stocks	17,036,118	-
	Preferred stocks	-	-

E. Stock related affairs

and granting the opportunity to subscribe for new shares including shares not subscribed by the association members. and if there are any unsubscribed shares,	Article 10 (Issuance and Allocation of Shares)		
	① When the Company issues new shares by a resolution of the Board of Directors, one of the following methods shall be used.		
	1. A method of granting shareholders the opportunity to subscribe for new shares in order to allocate new shares based on the number of shares they hold.		
	2. A method of granting an opportunity to subscribe for new shares in order to allocate new shares to persons other than shareholders in a method other than those in Subparagraph 1, if it is necessary to achieve the Company's management purposes, such as the introduction of new technologies and improvement of financial structure, within a limit not exceeding 25% of the total number of issued shares		
	3. A method of granting an opportunity to subscribe for new shares to an unspecified number of persons (including the company's shareholders) within a range not exceeding 25% of the total number of issued shares, and allocating new shares to those who have made a subscription accordingly, other than the method specified in Article 1.		
	② If allocating new shares in the method specified under Paragraph 1 Subparagraph 3, the new shares shall be allocated in any of the following methods by a resolution of the Board of Directors.		
	1. A method of allocating new shares to a number of unspecified people without classifying the type of persons to be granted an opportunity to subscribe for new shares		
	2. A method of allocating new shares to employee stock ownership association members in accordance with relevant laws, to an unspecified number of persons,		
	3. A method of granting shareholders the priority opportunity to subscribe for new shares, offering the opportunity to allocate these shares to an unspecified number of persons.		
	4. A method of granting the opportunity to subscribe for new shares to specific types of persons based on reasonable criteria, such as demand forecasts, as determined by relevant regulations, when the investment trading company or investment brokerage firm acts as the underwriter or arranger.		
③ In the case of allocating new shares pursuant to Paragraph 1, Subparagraphs 2 and 3, the matters specified in Article 416, Paragraph 1, Subparagraphs 1, 2, 2-2, 3, and 4 of the Commercial Act must be notified or announced to shareholders at least two weeks before the payment date. However, pursuant to Article 165-9 of the Capital Markets and Financial Investment Business Act, the notification and announcement may be substituted by disclosing the material facts report to the Financial Services Commission and the stock exchange.			
④ In the case of issuing new shares in any of the methods of any Subparagraphs of Paragraph 1, the type and number of shares to be issued and the issuing price, etc. shall be determined by a resolution of the Board of Directors.			
⑤ When the company allocates new shares, if any shares remain unsubscribed for or if the subscription price is not paid by the deadline, the method of handling such shares shall be determined by a resolution of the Board of Directors in accordance with the relevant laws and regulations, including the appropriateness of the issuance price.			
⑥ The Company shall determine the method of handling fractional shares generated while allocating new shares by a resolution of the Board of Directors.			
⑦ When allocating new stocks in accordance with Paragraph 1 Subparagraph 1, the Company shall issue preemptive right certificates for the shareholders.			
Date of settlement	December 31	Regular Meeting of Shareholders	Within 3 months from the date of settlement of accounts
Reference date	Last day of each settlement period		

Title of transfer agent	Securities Agency Department, Hana Bank (Gukjegeumyung-ro 72, Yeongdeungpo-gu, Seoul, 02-368-5800)		
Shareholders' privilege	None	Method of posting announcements	Corporate website: https://www.skchemicals.com/ However, if an announcement cannot be made on the Company's website due to a computing failure or another unavoidable reason, it shall be posted via the Maeil Business Newspaper daily published in the city of Seoul.

F. Summary of the minutes of the General Meeting of Shareholders

(Reference date: 2024.12.31)

Date of the General Meeting of Shareholders	Agenda	Content of the resolution	Key details discussed
The 7th Regular Meeting of Shareholders (2024.03.26)	Agendum No. 1: The 7th period (2023.01.01 - 2023.12.31) Approval of financial statements and consolidated financial statements Agendum No. 2: Appointment of an Outside Director who is an Audit Committee member (Candidate: Choi Sunmee) Agendum No. 3: Partial changes in the Articles of Incorporation Agendum No. 4: Approval of the ceiling of remuneration for Directors Agendum No. 5: Revision of executive severance pay regulations	Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan	-
The 6th Regular Meeting of Shareholders (2023.03.28)	Agendum No. 1: The 6th Period (2022.01.01 - 2022.12.31) Approval of financial statements and consolidated financial statements Agendum No. 2: Appointment of Directors - Agendum No. 2-1: Appointment of Inside Director (Candidate: Kim Cheol) - Agendum No. 2-2: Appointment of Inside Director (Candidate: Ahn Jae Hyun) - Agendum No. 2-3: Appointment of a Non-Executive director (Candidate: Jeon Kwang Hyun) - Agendum No. 2-4: Appointment of Outside Director (Candidate: Moon Sunghwan) - Agendum No. 2-5: Appointment of Outside Director (Candidate: Cho Honghee) Agendum No. 3: Appointment of Audit Committee Member - Agendum No. 3-1: Appointment of Audit Committee Member (Candidate: Moon Sunghwan) - Agendum No. 3-2: Appointment of Audit Committee Member (Candidate: Cho Honghee) Agendum No. 4: Approval of the ceiling of remuneration for Directors	Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan	-
The 5th Regular Meeting of Shareholders (2022.03.28)	Agendum No. 1: The 5th period (2021.1.1 - 2021.12.31) Approval of financial statements and consolidated financial statements Agendum No. 2: Change of the Articles of Incorporation Agendum No. 3: Appointment of Directors - Agendum No. 3-1: Appointment of Inside Director (Candidate: Jeon Kwang Hyun) - Agendum No. 3-2: Appointment of a Non-Executive Director (Candidate: Ahn Jae Hyun) - Agendum No. 3-3: Appointment of Outside Director (Candidate: Park Jungsoo) Agendum No. 4: Appointment of Audit Committee Member (Candidate: Park Jungsoo) Agendum No. 5: Approval of the ceiling of remuneration for Directors	Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan	-

VII. Shareholder Information

1. Share Ownership of the Largest Shareholder and Related Parties

(Reference date: 2024.12.31)

(Unit: stocks, %)

Name	Relationship	Type of stock	Number of shares owned and equity interest				Note
			Beginning of period		End of period		
			Number of shares	Equity interest	Number of shares	Equity interest	
SK discovery	Largest shareholder	Common stocks	7,056,899	40.90	7,056,899	40.90	-
Choi Chang Won	Related party	Preferred stocks	9,312	0.44	9,312	0.44	-
Choi Tae Won	Related party	Preferred stocks	67,971	3.21	67,971	3.21	-
Choi Jeong Won	Related party	Common stocks	12,177	0.07	12,177	0.07	-
Choi Jeong Won	Related party	Preferred stocks	4	0.00	4	0.00	-
Choi Ji Won	Related party	Common stocks	37,359	0.22	37,359	0.22	-
Choi Ji Won	Related party	Preferred stocks	649	0.03	649	0.03	-
Choi Ye Jeong	Related party	Common stocks	62,389	0.36	62,389	0.36	-
Lee Yoo Mi	Related party	Common stocks	903	0.01	903	0.01	-
Lee Charles Hwan	Related party	Common stocks	762	0.00	762	0.00	-
Korea Foundation for Advanced Studies	Related party	Common stocks	186,808	1.08	186,808	1.08	-
Ahn Jae Hyun	Executive	Common stocks	0	0.00	0	0.00	-
Kim Cheol	Executive	Common stocks	3,000	0.02	3,000	0.02	-
Jeon Kwang Hyun	Largest shareholder / executive	Common stocks	775	0.00	775	0.00	-
Total		Common stocks	7,361,072	42.66	7,361,072	42.66	-
		Preferred stocks	77,936	3.68	77,936	3.68	-

※ The beginning date is January 1, 2024, and the ending date is December 31, 2024.

2. Key Experience and Overview of the Largest Shareholder

A. Basic information of the largest shareholder (corporation or organization)

Name	Number of investors	CEO (Representative Member)		Executive Officer (Executive Managing Member)		Largest shareholder (Maximum Contributor)	
		Name	Equity interest (%)	Name	Equity interest (%)	Name	Equity interest (%)
SK Discovery Co., Ltd.	25,296	Choi Chang Won	40.72	-	-	Choi Chang Won	40.72
		-	-	-	-	-	-

※ The equity interest ratio above is calculated and stated based on common stocks.

※ The number of contributors above is based on the data as of December 31, 2024.

(Changes in the CEO, business executive, and the largest shareholder of a corporation or organization)

Date of change	Chief executive officer (representative member of the association)		Business executive (business executive members of the association)		Largest shareholder (largest investor)	
	Name	Equity interest (%)	Name	Equity interest (%)	Name	Equity interest (%)

2022.03.29	Ahn Jae Hyun	0.08	-	-	Choi Chang Won	40.18
2023.03.29	Jeon Kwang Hyun	-	-	-	Choi Chang Won	40.18
2024.03.12	Jeon Kwang Hyun	-	-	-	Choi Chang Won	40.72

※ The details of the changes above are based on common stocks, and as for the details such as the date, number of shares, and cause of change, refer to SK Discovery's "Report on the Status of Ownership of Executives and Major Shareholders' Specific Securities" and the "Report on Changes in the Shares Owned by the Largest Shareholder, Etc.," which are disclosed via the electronic disclosure system.

B. Financial status of the largest shareholder (corporation or organization) for the latest settlement period

(Unit: KRW one million)

Classification	
Name of corporation or organization	SK Discovery Co., Ltd.
Total Assets	15,077,692
Total liabilities	8,624,338
Total equity	6,453,354
Sales revenue	9,039,603
Operating income	172,558
Net income	31,919

※ The financial status of SK discovery Co., Ltd. above has been prepared based on the consolidated financial statements before the completion of the External Auditor's audit. For detailed information, including the External Auditor's review opinion, please refer to the regular report and publicly disclosed financial statements of SK discovery Co., Ltd.

C. Key details which may impact the Company's business management stability such as business status

- Not applicable

D. Representative of the largest shareholder (SK Discovery Co., Ltd.)

(Reference date: 2024.12.31)

Name	Position (whether full-time)	Year of birth	Professional background
Choi Chang Won	CEO and Vice Chairman (full-time)	1964.08	Psychology, Seoul National University Former) CEO and Vice Chairman of SK Gas Concurrent) Inside director and Vice Chairman of SK Gas Concurrent) Chairman of SUPLEX Implementation Council
Jeon Kwang Hyun	CEO and President (full-time)	1964.12	Korea University/Business Administration Former) CEO and President of SK Chemicals Concurrent) Non-Executive Director of SK Gas/SK Chemicals

E. Overview of the largest shareholder (SK Discovery Co., Ltd.)

1) Legal and Commercial Name of the Company

The company shall be called SK Discovery Co., Ltd., and which shall be 에스케이디스커버리주식회사 in Korean, and SK Discovery Co., Ltd. in English.

2) Date of foundation

Sunkyung Synthetic Fiber Co., Ltd., SK Discovery Co., Ltd.'s former corporation, was founded on July 1, 1969, and SK Discovery was listed on the securities market on June 29, 1976.

※ Since Sunkyung Synthetic Fiber Co., Ltd. merged with Sunkyung Fiber Co., Ltd. in 1976, the former's date of foundation is the SK Discovery's date of foundation.

SK discovery changed its trade name to SK discovery Co., Ltd. on December 1, 2017, the date of split-off, and it was split off into SK Discovery Co., Ltd., which is the investment unit, and SK chemicals Co., Ltd. which is the business unit.

3) Address, phone number and website address of the head office

- Address: 332 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam, Gyeonggi-do
- Phone number: 02-2008-7399
- Website: www.skdiscovery.com

4) Whether applicable as an SME

SK discovery Co., Ltd. does not qualify as a small or medium-sized enterprise under Article 2 of the Framework Act on Small and Medium Enterprises.

5) Contents of the Main Businesses

SK discovery Co., Ltd. transitioned into a holding company through a demerger on December 1, 2017, where the investment division remained as the surviving entity and the business division was established as a new entity. SK Discovery is a holding company whose purpose of business is to control another company by owning stocks of another company.

SK discovery Co., Ltd. is a pure holding company that does not engage in separate business operations, and its main revenue comes from dividend income received from subsidiaries and others.

SK discovery Co., Ltd.'s major subsidiaries and affiliated companies are engaged in the following businesses: production of eco-friendly materials and pharmaceutical business (SK chemicals, SK bioscience), gas business selling LPG, etc. (SK gas), plasma fractionation business (SK plasma), real estate development business (SK d&d), renewable energy business (SK e-tonics), and other businesses such as energy generation (Ulsan GPS), district energy supply (SK multi-utility), and real estate solutions (Proptier Co., Ltd.).

6) Status of registered executives

(Reference date: 2024.12.31)

(Unit: stocks)

Name	Gender	Date of birth (year and month)	Position	Registered executive	Outside Director	Person in charge Task	Professional background	Number of shares owned		Relationship with the Largest Shareholder	Period of service	Term of appointment Expiration Date
								Share with voting rights	Shares without voting rights			
Choi Chang Won	Male	1964.08	Vice Chairman	Inside director	Full-time	CEO Human Resources Committee	Psychology, Seoul National University Former) Vice Chairman and CEO of SK gas Former) CEO and Vice Chairman of SK gas, Inside director and Vice Chairman of SK gas	7,650,128	5,782	Largest shareholder Principal	30 years and 9 months	2027.03.27
Jeon Kwang Hyun	Male	1964.12	President	Inside director	Full-time	CEO ESG Committee	Korea University/Business Administration Former) CEO and President of SK Chemicals Concurrent) Non-executive Director of SK chemicals, Non-Executive Director of SK gas	-	-	Issuing company Registered executive	2 years and 1 month	2026.03.28
Nam Gi Jung	Male	January 1973	Director	Inside director	Full-time	Head of the Finance Office	KAIST Finance MBA Concurrent) Head of SK discovery IR Office Concurrent) Non-Executive Director of SK E-tonics	-	-	Issuing company Registered executive	4 years	2026.03.28

Koo Jae Sang	Male	1964.07	Director	Outside Director	Part-time	Chairman of the Board of Directors Audit Committee Chairman of the Personnel Committee Outside Director Candidate Nomination Committee member,	Yonsei University, Business Administration Former) CEO of Mirae Asset Management, CEO of K-Clavis Asset Management Current) Chairman and CEO of Kclavis, Chair Professor at Dongguk University	-	-	Issuing company Registered executive	10 months	2027.03.27
Kim Yong Joon	Male	1964.07	Director	Outside Director	Part-time	Chairman of the Audit Committee ESG Committee Outside Director Candidate Nomination Committee	Master's in Economics from Syracuse University, USA Former) Commissioner of the Central Regional Tax Office, Director of International Taxation at the National Tax Service Current) Auditor of OB Beer, Advisor at Kim & Chang Law Firm	-	-	Issuing company Registered executive	2 years and 10 months	Mar. 28, 2025
Kim Jin Il	Male	February 1967	Director	Outside Director	Part-time	Audit Committee ESG Committee Outside Director Candidate Nomination Committee	Ph.D. in Economics from Yale University, USA Former) Senior Economist at the Board of Governors of the Federal Reserve System, USA Current) Professor of Economics at Korea University, Outside Director at Hyundai Commercial	-	-	Issuing company Registered executive	1 year and 10 months	2026.03.28
Kim Hyeon Jin	Female	1968.08	Director	Outside Director	Part-time	Audit Committee Chairman of the ESG Committee Human Resources Committee	Ph.D. in International Relations from the University of Tokyo, Japan Former) Outside Director of Korea Gas Corporation Current) Professor at Seoul Science and Technology University, Member of the Ministry of Economy and Finance's Fiscal Policy Advisory Council	-	-	Issuing company Registered executive	2 years and 10 months	Mar. 28, 2025

3. Details of Changes in the Largest Shareholder

(Reference date: 2024.12.31)

(Unit: stocks, %)

Date of change	Name of the largest shareholder	Number of shares owned	Equity interest	Reason of change	Note
2020.12.09	SK Discovery Co., Ltd. and 11 others	4,188,827	31.71	Two related parties traded after hours (75,000 shares)	-
Dec. 23, 2020	SK Discovery Co., Ltd. and 11 others	4,185,827	31.69	CEO Kim Cheol sold off on the floor (3,000 shares)	-
2021.09.03	SK Discovery Co., Ltd. and 11 others	4,347,371	32.91	SK Discovery Co., Ltd. tender offered (161,544 shares)	-
2021.11.10	SK Discovery Co., Ltd. and 11 others	6,521,054	33.04	Changes in number of shares due to bonus issue (2,173,683 shares)	-
2022.07.08	SK Discovery Co., Ltd. and 10 others	6,519,890	33.04	CEO Park Chan Joong resigned (SK Discovery)	-
2022.09.23	SK Discovery Co., Ltd. and 10 others	7,439,008	37.69	SK Discovery's tender offer (919,118 shares)	-

※ The "number of shares owned" and the "equity interest" above are based on the total number of issued shares.

※ The Company re-listed the share certificates on the securities market on January 5, 2018.

※ The relationship with the largest shareholder was entered by making reference to the relationship provided under Article 3 Paragraph 1 of the Enforcement Decree of the Act on Corporate Governance of Financial Companies.

4. Distribution of Shares

A. Status of share ownership

(Reference date: 2024.12.31)

(Unit: stocks)

Classification	Name of shareholder	Number of shares owned	Equity interest (%)	Note
Shareholders owning 5% or more	SK Discovery Co., Ltd.	7,056,899	40.90	-
	National Pension Service	907,747	5.26	-
Treasury share association		-	-	-

※ The number of shares owned and the equity interest above are based on the common stocks.

※ Based on the shareholders' stock ownership as of the most recent shareholder register closing date, December 31, 2024, only the changes in ownership that are verifiable (publicly disclosed) up until December 31, 2024, have been reflected.

※ Please refer to the "Large Shareholding Report" disclosed by the National Pension Service on October 7, 2024, for the common shares held by the National Pension Service.

B. Status of minority shareholders

(Reference date: 2024.12.31)

(Unit: stocks)

Classification	Shareholders			Shares owned			Note
	Minor amount Name of shareholder	Overall Name of shareholder	Ratio (%)	Minor amount Number of shares	Amount of issuance Number of shares	Ratio (%)	
Minority shareholders	70,606	70,612	99.99	9,027,180	17,222,926	52.41	-

※ The above status of minority shareholders is based on the shareholder register closing date of December 31, 2024, and the ownership shares are based on common shares.

※ The minority shareholders are those who own less than 1% of the total number of issued shares, and the total number of issued shares is based on the total number of issued shares with voting rights.

5. Stock price and trading performance

The share price and the share trading performance for the last 6 months from the date of preparation of the disclosure documents are as follows.

(Unit: KRW, stocks)

Type		July 2024	August 2024	September 2024	October 2024	November 2024	December 2024
Common stocks	Share price	Highest	70,400	66,200	64,600	63,400	64,900
		Lowest	60,000	61,000	60,100	56,200	57,200
		Average	65,367	63,505	62,121	59,547	62,245
	Trading volume	Highest (daily)	1,322,562	120,848	321,107	89,114	88,493
		Lowest (daily)	19,460	23,563	16,656	21,986	10,941
		Monthly	2,974,233	1,180,030	1,258,952	818,766	706,340
Preferred stocks	Share price	Highest	32,800	31,250	30,800	29,700	29,550
		Lowest	27,950	28,950	28,700	26,850	27,350
		Average	30,205	29,848	29,234	28,374	28,759
	Trading volume	Highest (daily)	564,865	20,021	149,999	9,643	8,670
		Lowest (daily)	1,279	1,713	1,757	1,566	1,286
		Monthly	754,443	131,498	355,788	87,880	74,230

VIII. Executives, Employees, and Related Personnel

1. Status of Executives, Employees, and Related Personnel

A. Status of executives

(Reference date: 2024.12.31)

(Unit: stocks)

Name	Gender	Date of birth (year and month)	Position	Registered executive	Full-time	Person in charge Task	Professional background	Number of shares owned		Relationship with the Largest Shareholder	Period of service	Term of appointment Expiration Date
								Shares with voting rights	Shares without voting rights			
Kim Cheol	Male	1961.05	CEO and President	Inside director	Full-time	CEO	Seoul National University/Economics London School of Economics/Economics (Master's degree) Former) Head of the Resource Development Division, SK Innovation	3,000	-	Affiliated company Executive	7 years and 1 month	2026.03.28
Ahn Jae Hyun	Male	1966.02	CEO and President	Inside director	Full-time	CEO (ESG Committee Member)	Yonsei University/Applied Statistics Former) CEO and President of SK ecoplant	-	-	Affiliated company Executive	2 years and 9 months	2026.03.28
Jeon Kwang Hyun	Male	1964.12	Non-executive director	Non-executive director	Part-time	Non-executive director (Personnel Committee Member)	Korea University/Business Administration Former) CEO and President of SK Chemicals Current) CEO of SK Discovery	775	-	Largest shareholder Executive	7 years and 1 month	2026.03.28
Park Jungsoo	Male	1966.02	Director	Outside Director	Part-time	Outside Director (Chairman of the ESG Committee, Member of the Outside Director Nomination Committee, Member of Personnel Committee) - Member of the Personnel Committee	Seoul National University/Economics, Seoul National University/Economics (Master) Stanford University/Economics (PhD) Current) Professor of Economics, Sogang University Current) Dean of the College of Economics, Sogang University	-	-	Affiliated company Executive	5 years and 9 months	Mar. 28, 2025
Moon Sunghwan	Male	1954.01	Director	Outside Director	Part-time	Outside Director (Chairman of the Board of Directors, Member of the Audit Committee, Chairman of the Personnel Committee)	Seoul National University/Business Administration Helsinki School of Economics, Finland (MBA) Former) CEO and President of Huvis Former) CEO and President of Samyang Corporation	-	-	Affiliated company Executive	4 years and 9 months	2026.03.28
Cho Honghee	Male	1959.07	Director	Outside Director	Part-time	Outside Director (Chairman of the Audit Committee, Member of the Outside Director Nomination Committee, Member of the Personnel Committee)	Sungkyunkwan University/International Trade UK University of Bath/Tax Studies (Master) Former) Commissioner of Seoul Regional Tax Office Former) Outside Director of Daekyo Co. Ltd. and Celltrion Current) Advisor of Bae, Kim & Lee LLC Current) Outside Director of Meritz Financial Group	-	-	Affiliated company Executive	4 years and 9 months	2026.03.28
Choi Sunmee	Female	February 1969	Director	Outside Director	Part-time	Outside Director (Chairman of the Outside Director Nomination Committee, Member of the Audit Committee, Member of the ESG Committee)	Yonsei University/English Literature Master's/Ph.D. from Cornell University Graduate School, USA Former) Deputy Director of the Office of International Affairs at Yonsei University Former) Dean of the College of Business Administration, VinUniversity, Vietnam Current) Professor of Business Administration, Yonsei University	-	-	Affiliated company Executive	10 months	2027.03.26
Hwang Chun Hyun	Male	1957.08	Executive	Unregistered	Full-time	Assistant to the President	Pusan National University/Bachelor in Business Administration	1,164	-	-	7 years and 1 month	-
Yang Jeong Il	Male	1970.05	Executive	Unregistered	Full-time	Assistant to the President	Seoul National University/Bachelor in Law Former) Head of Legal Affairs at SK gas Former) Head of Ethics Management Division at SK ecoplant	-	-	-	7 years and 1 month	-
Lee Kwang Seok	Male	1962.07	Executive	Unregistered	Full-time	Assistant to the President	Pusan National University/Bachelor in Business Administration Former) Head of Public Relations at SK ecoplant	-	-	-	7 years and 1 month	-
Kim Hyun Suk	Male	1966.06	Executive	Unregistered	Full-time	Recycling Business Division	Yonsei University/Biochemistry Univ. of North Carolina at Chapel Hill (MBA)	1,024	-	-	7 years and 1 month	-
Yoo Ho Seob	Male	1966.01	Executive	Unregistered	Full-time	Head of Production Infrastructure Division Concurrent) Head of Green Materials Production Division	Seoul National University/Chemical Engineering	-	-	-	7 years and 1 month	-
Kim Yun Ho	Male	1967.09	Executive	Unregistered	Full-time	Assisting the Head of Pharma Business	KonKuk University / Department of History, Yonsei University MBA Former) CEO of SK plasma	-	-	-	2 years and 1 month	-
Kim Han Seok	Male	1968.02	Executive	Unregistered	Full-time	Head of Chemistry Research Center Concurrent) Head of Green Materials Research Division	Sogang University/Bachelor and Master in Chemical Engineering in Chemical Engineering	477	-	-	7 years and 1 month	-

Cho Su Dong	Male	1971.08	Executive	Unregistered	Full-time	Head of Marketing Division 1, Pharma Business Unit	Suwon University/Genetic Engineering, Hanyang University (MBA)	90	-	-	7 years and 1 month	-
Yu Hyung Jun	Male	1970.01	Executive	Unregistered	Full-time	Assisting the Head of Pharma Business	Konkuk University/Microbial Engineering,	17	-	-	7 years and 1 month	-
Kim Kwang Jin	Male	1970.03	Executive	Unregistered	Full-time	Assisting the Head of Pharma Business	Hannam University/Department of Regional Development	-	-	-	7 years and 1 month	-
Kim Tae Hwan	Male	1976.03	Executive	Unregistered	Full-time	ER Manager, Management Support Office, Pharma Business Unit	Sungkyunkwan University/Business Administration	-	-	-	3 years and 6 months	-
Kim Eung Soo	Male	1969.08	Executive	Unregistered	Full-time	Head of Green Materials Business Concurrent) Head of Green Materials Business Division	Sungkyunkwan University/Textile Engineering	-	-	-	7 years and 1 month	-
Kim Kee Dong	Male	1971.02	Executive	Unregistered	Full-time	Assistant to the President	Korea University / Economics, Indiana University / MBA Former) Head of Finance at SK discovery	317	-	-	3 years	-
Kim Hak Sung	Male	1970.06	Executive	Unregistered	Full-time	Assistant to the President	Seoul National University/Bachelor in Industrial Chemistry, Seoul National University/Master in Polymer Composite Materials	327	-	-	7 years and 1 month	-
Jung Jae Joon	Male	1976.10	Executive	Unregistered	Full-time	President of SK Shantou Concurrent) Head of China RHQ (Regional Headquarters)	Hanyang University/Chemical Engineering	-	-	-	7 years and 1 month	-
Kim Dong Ryul	Male	1969.10	Executive	Unregistered	Full-time	Head of the Management Support Office Concurrent) Head of SHE Division	Inha University/Chemical Engineering	-	-	-	5 years and 1 month	-
Song Gi Suk	Male	1970.05	Executive	Unregistered	Full-time	Head of the Value Innovation Office	Yonsei University / Economics, Columbia University / MBA Sungkyunkwan University / Business Administration (Ph.D.) Former) Head of Research Center at BoA Merrill Lynch	-	-	-	2 years and 5 months	-
An Young Il	Male	1972.11	Executive	Unregistered	Full-time	Head of Marketing Division 2, Pharma Business Unit	Daejeon University/Environmental Engineering, Chungnam National University (MBA)	-	-	-	7 years and 1 month	-
Yoo Hun Seung	Male	1975.12	Executive	Unregistered	Full-time	Head of Pharma Research Institute, Pharma Business Unit	Seoul University / Pharmacy, Seoul University / Pharmacognosy (Master's) Seoul University / Pharmacognosy (Ph.D.)	-	-	-	7 years and 1 month	-
Park Hyun Sun	Male	1971.02	Executive	Unregistered	Full-time	Head of Pharma Business Unit	Sungkyunkwan University/Pharmaceutics, Sungkyunkwan University/Pharmacy (Master), Korea University/MBA Former) Research Center Director/Sales Manager, Yonsung Fine Chemicals Former) Pharma Biz Marketing Planning Director, SK Chemicals	-	-	-	2 years and 1 month	-
Koo Min Hoe	Male	1968.12	Executive	Unregistered	Full-time	Head of the Management Support Office, Pharma Business	Sungkyunkwan University/Bachelor in Accounting	-	-	-	7 years and 1 month	-
Yang Hui Jin	Female	1975.07	Executive	Unregistered	Full-time	Head of the Legal Office	Yonsei University/Biochemistry American Univ, Washington College of Law/LLM Former) Partner Attorney, Law Firm Lee & Ko	-	-	-	2 years and 1 month	-
Kang Seok Ho	Male	1972.02	Executive	Unregistered	Full-time	Head of the Strategy Center Concurrent) Head of Management Support Division Concurrent) Head of Recycling M&BD/Operations Division	Seoul National University/Electronic Engineering, Seoul National University/Electronic Engineering (Master) Univ. of Chicago/MBA Former) Head of Tractor Business Division at LS Mtron	-	-	-	2 years	-
Cho Hyun Jun	Male	1971.07	Executive	Unregistered	Full-time	Head of Recycling Process Research Division	Hanyang University/Chemical Engineering, Hanyang University/Chemical Engineering (Master) Hanyang University/Chemical Engineering (PhD)	-	-	-	7 years and 1 month	-
Son Dong Yeoul	Male	1968.07	Executive	Unregistered	Full-time	Head of the Engineering Office	University of Ulsan/Electronic Engineering	-	-	-	7 years and 1 month	-
Kim Sung Gi	Male	1969.03	Executive	Unregistered	Full-time	Head of Functional Materials Research Division Concurrent) Head of Functional Materials Business Division	Sogang University/Bachelor and Master in Chemical Engineering Toledo Univ./Engineering (PhD)	-	-	-	7 years and 1 month	-
Kim Hyoun Dong	Male	1971.03	Executive	Unregistered	Full-time	Head of Communications Office	Chung-Ang University / Economics	-	-	-	7 years and 1 month	-
Mun Jeong Hyun	Female	1975.11	Executive	Unregistered	Full-time	Development Division Head, Pharma Business	B.S. in Pharmaceutical Science, Seoul National University / M.S. in Pharmacy, Seoul National University	-	-	-	7 years and 1 month	-
Nam Sung Hyun	Male	1976.04	Executive	Unregistered	Full-time	In charge of production, SK Shantou	Hanyang University / Chemical Engineering, Ulsan University / Industrial Engineering (Master's)	-	-	-	7 years and 1 month	-

※ Choi Sunmee, the Outside Director, was newly appointed at the 7th Annual General Meeting of Shareholders held on March 26, 2024.

※ The relationship with the largest shareholder was entered by making reference to the relationship provided under Article 3 Paragraph 1 of the Enforcement Decree of the Act on Corporate Governance of Financial Companies.

※ The "number of shares owned" above is the number excluding the number of treasury shares owned.

(Newly appointed and retired executives on or after the date of preparation)

Classification	Name	Gender	Date of birth (year and month)	Position	Whether a registered executive	Whether full-time	Tasks in charge	Professional background	Number of shares owned		Relationship with the Largest Shareholder
									Shares with voting rights	Shares without voting rights	
Appointment	Yoon Won Jae	Male	1974.07	Executive	Unregistered	Full-time	Head of Application Development Division	Hanyang University / Fiber and Polymer Engineering, Hanyang University / Fiber and Polymer Engineering (Master's) Hanyang University / Organic Nano Engineering (Ph.D.)	54	39	-
Appointment	Sung Yoon Seok	Male	1979.04	Executive	Unregistered	Full-time	Head of Strategic Planning Division	Kyung Hee University / Economics, Northwestern University / MBA Concurrent) Head of DT Division, Head of Pharma Strategic Planning Division	-	-	-
Appointment	Chang Cheol Woong	Male	1977.03	Executive	Unregistered	Full-time	Head of Legal Affairs	Seoul University / Economics, Pusan National University / Law (Master's) Concurrent) Head of Legal Affairs at SK gas, Head of Legal Affairs at SK discovery	-	-	-
Retired	Hwang Chun Hyun	Male	1957.08	Executive	Unregistered	Full-time	Assistant to the President	Pusan National University/Bachelor in Business Administration	1,164	-	-

Retired	Kim Yun Ho	Male	1967.09	Executive	Unregistered	Full-time	Assisting the Head of Pharma Business Unit	KonKuk University / Department of History, Yonsei University MBA Former) CEO of SK plasma	-	-	-
Retired	Yu Hyung Jun	Male	1970.01	Executive	Unregistered	Full-time	Assisting the Head of Pharma Business Unit	Konkuk University/Microbial Engineering,	17	-	-
Retired	Kim Kwang Jin	Male	1970.03	Executive	Unregistered	Full-time	Assisting the Head of Pharma Business Unit	Hannam University/Department of Regional Development	-	-	-
Retired	Kim Kee Dong	Male	1971.02	Executive	Unregistered	Full-time	Assistant to the President	Korea University / Economics, Indiana University / MBA Former) Head of Finance at SK discovery	317	-	-
Retired	Kim Hak Sung	Male	1970.06	Executive	Unregistered	Full-time	Assistant to the President	Seoul National University/Bachelor in Industrial Chemistry, Seoul National University/Master in Polymer Composite Materials	327	-	-
Retired	Song Gi Suk	Male	1970.05	Executive	Unregistered	Full-time	Head of the Value Innovation Office	Yonsei University/Economics, Columbia Univ./MBA, Sungkyunkwan University/Business Administration (PhD) Former) Head of Research Center at BoA Merrill Lynch	-	-	-

※ The relationship with the largest shareholder was entered by making reference to the relationship provided under Article 3 Paragraph 1 of the Enforcement Decree of the Act on Corporate Governance of Financial Companies.

※ The "number of shares owned" above is the number excluding the number of treasury shares owned.

B. Status of candidates for the appointment and dismissal of registered executives

(Reference date: 2024.12.31)

Classification	Name	Gender	Date of birth (year and month)	Outside Director Candidate Whether applicable	Professional background	Scheduled date of appointment or dismissal	Relationship with the Largest Shareholder
Appointment	Son Hyun Ho	Male	1969.09	-	MBA from the University of Texas, USA, Korea University / Business Administration Former) Head of Finance Division 3 at SK Corporation Former) Executive in charge of the Strategic Support Team at the SUPEX Council Former) Head of the Strategic Support Team at the SUPEX Council Current) CEO of SK discovery	2025.03.26	Largest shareholder / executive
Appointment	Park Tae Jin	Male	1961.07	Applicable	Seoul University Graduate School of Business, Seoul University / German Language and Literature Former) Branch Manager at Deutsche Bank Seoul Branch Former) Head of Investment Banking Division at Deutsche Bank Former) Head of Corporate Finance Division at JP Morgan Former) Branch Manager at JP Morgan Securities Seoul Branch Former) Head of Investment Banking Division at JP Morgan (Concurrent) Former) Country Head of JP Morgan Korea (Managing Director & Country CEO) Former) Chairman of JP Morgan Korea and Vice Chairman of the Asia-Pacific Region Current) Management Advisor at Hyundai Card	2025.03.26	-
Dismissal	Jeon Kwang Hyun	Male	1964.12	-	Korea University/Business Administration Former) CEO and President of SK chemicals Current) CEO of SK discovery	2025.03.26	Largest shareholder / executive

C. Status of the registered executives' concurrent positions held

(Reference date: 2024.12.31)

Classification		Status of concurrent positions held			
Name	Position	Company Name	Position	Time of appointment	Whether full-time or not
Jeon Kwang Hyun	Non-executive director	SK Gas	Non-executive director	2023.03.23	Part-time
		SK discovery	CEO and President	2023.03.29	Full-time

Ahn Jae Hyun	CEO and President	SK bioscience	Non-executive director	2023.03.27	Part-time
Cho Honghee	Outside Director	Meritz Financial Group	Outside Director	2022.03.24	Part-time

※The above appointment date is the most recent appointment date.

D. Status of employees, etc.

(1) Status of employees, etc.

(Reference date: 2024.12.31)

(Unit: KRW one million)

Employees										Non-affiliated employees			Note
Business division	Gender	Number of employees					Average number of years of continuous service	Total amount of annual salaries	Amount of salary per person	Male	Female	Total	
		Employees without a fixed term		Fixed-term employees		Total							
		Overall	(Part-time employees)	Overall	(Part-time employees)								
Management Support Division	Male	69	-	7	5	76	10.1	9,325	123	354	108	462	-
Management Support Division	Female	38	-	11	5	49	7.3	2,847	58				-
Green Chemicals Biz	Male	484	-	24	2	508	14.4	51,185	101				-
Green Chemicals Biz	Female	116	-	10	2	126	10.7	9,214	73				-
Life Science Biz	Male	499	-	35	-	534	10.5	41,851	78				-
Life Science Biz	Female	157	-	16	-	173	8.3	10,481	61				-
Genders combined	Male	1,052	-	66	7	1,118	12.2	102,361	92				-
Genders combined	Female	311	-	37	7	348	9.1	22,541	65				-
Total		1,363	-	103	14	1,466	11.5	124,902	85				-

※ The "Average number of years of continuous service" above includes years of service prior to the spin-off from SK Discovery on December 1, 2017.

※ The details above were prepared including the unregistered executives, and the registered executives are excluded.

※ According to Article 20 of the Income Tax Act, the employees' salaries above are based on the earned income of the statement of earned income payment submitted to the competent tax office.

※ The "average salary per person" above is the sum of the average monthly salaries, and the average monthly salary is the total salary for the relevant month divided by the average number of employees in service of the relevant month.

(2) Status of parental support program usage

(Reference date: 2024.12.31)

(Unit: persons, %)

Classification	The 8th period (current period)	The 7th period (previous period)	The 6th period (period before previous period)
Number of parental leave users (Male)	4	4	4
Number of parental leave users (Female)	13	10	14
Number of parental leave users (Overall)	17	14	18
Parental leave usage rate (Male)	10.3%	8.9%	7.3%
Parental leave usage rate (Female)	81.3%	90.9%	100.0%
Parental leave usage rate (Total)	30.9%	25.0%	26.1%
Employees who returned after parental leave and have been employed for 12 months or more (Male)	4	4	4
Employees who returned after parental leave and have been employed for 12 months or more (Female)	13	8	14

Employees who returned after parental leave and have been employed for 12 months or more (Total)	17	12	18
Number of users of the reduced working hours system for childcare	1	2	3
Number of users of spousal maternity leave	40	44	41

Data: provided by the company

(3) Usage rate of reduced working hours during pregnancy and childcare periods

(Reference date: 2024.12.31)

(Unit: persons, %)

Classification	The 8th period (current period)	The 7th period (previous period)	The 6th period (period before previous period)
Reduced working hours system during pregnancy (A)	10	3	6
Reduced working hours system during childcare (B)	1	2	3
Total (A+B)	11	5	9
Pregnancy-related reduced working hours usage rate	62.5%	27.3%	42.9%
Childcare-related reduced working hours usage rate	1.8%	3.6%	4.3%
Usage rate of reduced working hours during pregnancy and childcare periods	64.3%	30.8%	47.2%

Data: provided by the company

(4) Flexible working arrangement usage status

(Reference date: 2024.12.31)

(Unit: persons, %)

Classification	The 8th period (current period)	The 7th period (previous period)	The 6th period (period before previous period)
Usage of flexible working arrangements	0	0	0
Number of users of staggered working hours system	510	502	496
Number of users of selected working hours system	518	499	487
Number of users of remote working system (including telecommuting)	698	675	652

Data: provided by the company

E. Status of the unregistered executives' remuneration

(Reference date: 2024.12.31)

(Unit: KRW one million)

Classification	Number of persons	Total amount of annual salaries	Amount of salary per person	Note
Unregistered executive	29	9,185	317	-

※ The above 'number of personnel' is based on the current executives serving as of the date of preparation of the disclosure document.

※ The above 'total annual salary' and 'average salary per person' include retired executives.

2. Remuneration of the Executives

<Status of the remuneration for all directors and auditors>

A. Amount approved at and by the General Meeting of Shareholders

(Unit: KRW one million)

Classification	Number of persons	Amount approved at and by the General Meeting of Shareholders	Note
Registered executive	7 persons	5,000	Inside and Outside Directors combined

※ The 'number of persons' above is as of the date of preparation of the disclosure documents.

※ The amount approved by the shareholders' meeting for Directors and Auditors is the total compensation for both Internal and External Directors, and it was approved at the regular shareholders' meeting held on March 26, 2024.

B. Amount of remuneration paid

(1) For all Directors and Auditors

(Unit: KRW one million)

Number of persons	Total amount of remuneration	Average amount of remuneration per person	Note
7	2,635	376	-

※ The 'number of persons' above is as of the date of preparation of the disclosure documents.

※ According to Article 20 of the Income Tax Act, the salaries above are based on the earned income of the statement of earned income payment submitted to the competent tax office.

※ The above total compensation includes the compensation of Executive Directors, External Directors, and Audit Committee members who served or retired during the relevant fiscal year.

※ The above 'average compensation per person' is calculated by simply averaging the total compensation by the number of personnel.

(2) By type

(Unit: KRW one million)

Classification	Number of persons	Total amount of remuneration	Average amount of remuneration per person	Note
Registered director (excluding Outside Directors and members of the Audit Committee)	3	2,180	727	-
Outside Director (excluding members of the Audit Committee)	-	-	-	-
Member of the Audit Committee	4	455	114	-
Auditor	-	-	-	-

※ The 'number of persons' above is as of the date of preparation of the disclosure documents.

※ According to Article 20 of the Income Tax Act, the salaries above are based on the earned income of the statement of earned income payment submitted to the competent tax office.

※ The above total compensation includes the compensation of executive directors, external directors, and audit committee members who served or retired during the relevant fiscal year.

※ The above 'average compensation per person' is calculated by simply averaging the total compensation by the number of personnel.

※The above audit committee members are external directors who serve as audit committee members.

(3) Criteria for remuneration payment

Classification	Grounds of payment
Registered Director (excluding Outside Directors and members of the Audit Committee)	The base salary was determined by comprehensively considering factors such as duties, expertise, and contributions to the company, within the scope of the Director compensation limit for 2024. In addition, the performance-based bonus may be granted by comprehensively considering both quantitative evaluation results, such as the company's revenue and operating profit, and qualitative evaluation results, such as the achievement of strategic goals and leadership.
Outside Director (excluding members of the Audit Committee)	-
Member of the Audit Committee	The base salary was determined by comprehensively considering factors such as duties, expertise, and the company's business environment, within the scope of the Director compensation limit for 2024.
Auditor	-

<Status of the individual remuneration for Directors and auditors whose remuneration paid is KRW 500 million or greater>

(1) Individual remuneration

(Unit: KRW one million)

Name	Position	Total amount of remuneration	Remuneration not included in the total amount of remuneration
Ahn Jae Hyun	CEO and President	1,230	-
Kim Cheol	CEO and President	950	

(2) Criteria and method of calculation

(Unit: KRW one million)

Name	Type of remuneration	Total amount	Criteria and method of calculation
Ahn Jae Hyun	Earned income	Salary	930
		Bonus	300
		Income from the exercise of stock option	-
		Other earned income	-
	Retirement income		-

	Other income		-	-
Kim Cheol	Earned income	Salary	950	In accordance with the executive compensation guidelines, the base salary of 950 million KRW was determined by comprehensively considering factors such as position (CEO), title (President), leadership, expertise, and contributions to the company. The base salary was determined to be 950 million KRW, and a monthly payment of 79 million KRW, which is 1/12 of the total, was made.
		Bonus	-	-
		Income from the exercise of stock option	-	-
		Other earned income	-	-
	Retirement income		-	-
	Other income		-	-

<Status of the individual remuneration for the top 5 individuals among those who were paid KRW 500 million or greater for remuneration>

(1) Individual remuneration

(Unit: KRW one million)

Name	Position	Total amount of remuneration	Remuneration not included in the total amount of remuneration
Ahn Jae Hyun	CEO and President	1,230	-
Kim Cheol	CEO and President	950	-
Kim Yun Ho	Executive	1,900	-
Yang Hui Jin	Executive	628	-
Hwang Chun Hyun	Executive	2,153	-

(2) Criteria and method of calculation

(Unit: KRW one million)

Name	Type of remuneration		Total amount	Criteria and method of calculation
Ahn Jae Hyun	Earned income	Salary	930	In accordance with the executive compensation guidelines, the base salary of 930 million KRW was determined by comprehensively considering factors such as position (CEO), title (President), leadership, expertise, and contributions to the company. A monthly payment of 7.8 million KRW, which is 1/12 of the total, was made.
		Bonus	300	The performance-based bonus is granted within the range of 0 to 200% of the base salary, based on a comprehensive evaluation of quantitative indicators such as revenue, operating profit, pre-tax profit, and net income, as well as qualitative indicators such as leadership, expertise, and other contributions to the company. Considering the quantitative indicators such as revenue of 1.74 trillion KRW and operating profit of 83.3 billion KRW (on a consolidated basis) for 2023, and in terms of qualitative indicators, the bonus of 300 million KRW was calculated and paid, taking into account the contribution to growth through securing stable financial performance in a challenging business environment, making investment decisions in rBHET, and acquiring recycling business infrastructure through asset transfer contracts.
		Income from the exercise of stock option	-	-
		Other earned income	-	-
	Retirement income		-	-
	Other income		-	-
Kim Cheol	Earned income	Salary	950	In accordance with the executive compensation guidelines, the base salary of 950 million KRW was determined by comprehensively considering factors such as position (CEO), title (President), leadership, expertise, and contributions to the company. The base salary was determined to be 950 million KRW, and a monthly payment of 79 million KRW, which is 1/12 of the total, was made.
		Bonus	-	-

		Income from the exercise of stock option	-	-
		Other earned income	-	-
		Retirement income	-	-
		Other income	-	-
Kim Yun Ho	Earned income	Salary	420	In accordance with the executive compensation guidelines, the base salary was determined to be 420 million KRW, considering factors such as position, leadership, expertise, and contributions to the company. A monthly payment of 35 million KRW, which is 1/12 of the total, was made.
		Bonus	260	The performance-based bonus is granted within the range of 0 to 200% of the base salary, based on a comprehensive evaluation of quantitative indicators such as revenue, operating profit, pre-tax profit, and net income, as well as qualitative indicators such as leadership, expertise, and other contributions to the company. Considering the quantitative indicators, such as the Pharma business revenue of 360.2 billion KRW and pre-tax profit of 29.4 billion KRW for 2023, which exceeded the pre-tax profit target, and in terms of qualitative indicators, the bonus of 260 million KRW was calculated and paid. This was based on the contribution to the establishment of a master plan for mid-to-long-term growth as the Pharma business representative, as well as creating a foundation for advancing the Global CDMO business, even in a challenging business environment.
		Income from the exercise of stock option	-	-
		Other earned income	110	An amount of 106 million KRW, which exceeds the retirement income limit from severance pay, was paid as earned income. Additionally, approximately 5 million KRW was paid using the remaining balance of Benefit Points, which is part of the executive welfare benefits.
	Retirement income		1,110	In accordance with the executive severance pay regulations, an amount of 1.216 billion KRW was calculated and paid, considering the monthly salary of 35 million KRW at the time of retirement, the length of service of 11 years, the average payment rate, and contributions. Among this amount, the severance pay limit under the Income Tax Act was applied, and 1.11 billion KRW was paid as retirement income.
	Other income		-	-
Yang Hui Jin	Earned income	Salary	470	In accordance with the executive compensation guidelines, the base salary was determined to be 470 million KRW, considering factors such as position, leadership, expertise, and contributions to the company. A monthly payment of 39 million KRW, which is 1/12 of the total, was made.
		Bonus	150	The performance-based bonus is granted within the range of 0 to 200% of the base salary, based on a comprehensive evaluation of quantitative indicators such as revenue, operating profit, pre-tax profit, and net income, as well as qualitative indicators such as leadership, expertise, and other contributions to the company. Considering the contribution to the execution of the Eco-Transition through asset transfer contracts, ISO 37001 certification, and other factors a bonus of 150 million KRW was calculated and paid.
		Income from the exercise of stock option	-	-
		Other earned income	8	Approximately KRW 8 million was paid as the remainder of the Benefit Points, which is part of executive welfare benefits.
	Retirement income		-	-
	Other income		-	-
Hwang Chun Hyun	Earned income	Salary	430	In accordance with the executive compensation guidelines, the base salary was determined to be 430 million KRW, considering factors such as position, leadership, expertise, and contributions to the company. A monthly payment of 36 million KRW, which is 1/12 of the total, was made.
		Bonus	128	The performance-based bonus is granted within the range of 0 to 200% of the base salary, based on a comprehensive evaluation of quantitative indicators such as revenue, operating profit, pre-tax profit, and net income, as well as qualitative indicators such as leadership, expertise, and other contributions to the company. Considering the contribution to the improvement of the overall company's SHE (Safety, Health, and Environment) competency level, a bonus of 128 million KRW was calculated and paid.
		Income from the exercise of stock option	-	-
		Other earned income	158	An amount of 158 million KRW, which exceeds the retirement income limit from severance pay, was paid as earned income.
	Retirement income		1,437	In accordance with the executive severance pay regulations, an amount of 1.595 billion KRW was calculated and paid, considering the monthly salary of 36 million KRW at the time of retirement, the length of service of 11 years, the average payment rate, and contributions. Among this amount, the severance pay limit under the Income Tax Act was applied, and 1.437 billion KRW was paid as retirement income.
	Other income		-	-

C. Status of stock option subsidies and exercises

(1) Stock options granted to Directors and Auditors

(Unit: KRW one thousand)

Classification	Number of persons to whom stock options were granted	Total fair value of stock options	Note
Registered Director (excluding Outside Directors and members of the Audit Committee)	2	-	-
Outside Director (excluding members of the Audit Committee)	-	-	-
Member of the Audit Committee or Auditor	-	-	-
Person who instructs another person to conduct business, etc.	2	-	-
Total	4	-	-

(2) Calculation method of fair value, etc.

The details of the stock options' fair value calculation are as follows.

(Reference date: 2024.12.31)

(Unit: stocks, KRW)

the share-based payment agreement	Number of stocks to be issued (Note 1)	Period of exercise	Exercise price (Note 1)	Fair value on the date of grant (Note 1)
Mar. 6, 2018	29,988	2020.03.07 - 2025.03.06	71,785	15,864
2018.03.26 (1st)	22,491	2021.03.27 - 2025.30.26	72,009	16,226
2018.3.26 (2nd)	44,984	2022.03.27 - 2025.03.26	77,724	13,717
2019.03.25 (1st)	22,491	20210.3.26 - 2026.03.25	47,749	9,184
2019.03.25 (2nd)	22,492	2022.03.26 - 2026.03.25	51,517	7,856

(Note 1) Following the capital increase without consideration, the number of shares to be issued and the exercise price have been adjusted, and the fair value on the date of grant has been adjusted and recorded.

The fair value of stock options was calculated in line with the binomial option pricing model. The variables applied to the model are as follows.

(Unit: KRW)

Classification	Portion granted on 2018.03.6	Portion granted on 2018.03.26 (1st)	Portion granted on 2018.03.26 (2nd)	Portion granted on 2019.03.26 (1st)	Portion granted on 2019.03.26 (2nd)
Stock price on the date of grant (Note 1)	69,667	70,000	70,000	45,267	45,267
Exercise price (Note 1)	71,785	72,009	77,724	47,749	51,517
Expected volatility	15.07%	15.75%	15.75%	18.37%	18.37%
Risk-free interest rate	2.66%	2.57%	2.57%	1.92%	1.92%

(Note 1) Following the capital increase without consideration, the exercise price has been adjusted, and the stock price on the date of grant has been adjusted and entered.

(3) Status of the stock options granted and exercised

(Reference date: 2024.12.31)

(Unit: KRW, stocks)

Grantee	Relationship	the share-based payment agreement	Method of grant	Type of stock	Initial grant Quantity	Quantity changed during the current period		Total quantity changed		Quantity unexercised at the end of period	Period of exercise	Exercise price	Mandatory holding	Mandatory holding of trading suspension
						Exercised	Revoked	Exercised	Revoked					

Hwang Chun Hyun	Unregistered executive	Mar. 6, 2018	Determined by the Board of Directors among new share issuance, treasury stock issuance, and cash settlement.	Common stocks	14,994	-	-	-	-	14,994	2020.03.07-2025.03.06	71,785	X	-
Kim Hyun Suk	Unregistered executive	Mar. 6, 2018	Determined by the Board of Directors among new share issuance, treasury stock issuance, and cash settlement.	Common stocks	14,994	-	-	-	-	14,994	2020.03.07-2025.03.06	71,785	X	-
Kim Cheol	Registered executive	Mar. 26, 2018	Determined by the Board of Directors among new share issuance, treasury stock issuance, and cash settlement.	Common stocks	22,491	-	-	-	-	22,491	2020.03.27-2025.03.26	72,009	X	-
Kim Cheol	Registered executive	Mar. 26, 2018	Determined by the Board of Directors among new share issuance, treasury stock issuance, and cash settlement.	Common stocks	22,492	-	-	-	-	22,492	2021.03.27-2025.03.26	77,724	X	-
Jeon Kwang Hyun	Registered executive	Mar. 25, 2019	Determined by the Board of Directors among new share issuance, treasury stock issuance, and cash settlement.	Common stocks	22,491	-	-	-	-	22,491	2021.03.26-2026.03.25	47,749	X	-
Jeon Kwang Hyun	Registered executive	Mar. 25, 2019	Determined by the Board of Directors among new share issuance, treasury stock issuance, and cash settlement.	Common stocks	22,492	-	-	-	-	22,492	2022.03.26-2026.03.25	51,517	X	-

※ Closing price as of the disclosure document preparation date (December 31, 2024): KRW 44,300

IX. Affiliates and Related Parties

A. Name of the corporate group and the number of affiliates

- affiliated companies status(summary)

(Reference date: 2024.12.31)

(Unit: company)

Name of corporate group	Number of affiliates		
	Listed	Unlisted	Total
SK	21	812	833

※For the detailed status, refer to “Detailed Table-2. Status of Affiliates (Details).”

※This includes overseas affiliates, with overseas affiliates classified as unlisted.

[Status of investments between the affiliates]

As of December 31, 2024

(Based on common stocks)

Investee \ Investor	SK Innovation	Korea Oil Pipeline Corporation	Happy Kiwoom	SK Energy	Nae Truck	Jeju SKFC	Happy Didim	goodsFLOW	SK Geo Centric	Ulsan Aromatics Co., Ltd.
SK Co., Ltd.	55.9%									
SK Innovation		41.0%	100.0%	100.0%					100.0%	
SK Energy					100.0%	100.0%	100.0%	100.0%		
SK Geo Centric										50.0%
SK Enmove										
SK On										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										

SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	55.9%	41.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	50.0%

Investee \ Investor	Happy Moum	Wonpol	STAC	SK Enmove	U-Base Manufacturing Asia	SK on	SK on-techplus	Happy Miteum	SK Earthon	SK Incheon Petrochemical Co., Ltd.
SK Co., Ltd.										
SK Innovation				70.0%		94.9%			100.0%	100.0%
SK Energy										
SK Geo Centric	100.0%	100.0%	50.0%							
SK Enmove					70.0%					
SK on							100.0%	100.0%		
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	50.0%	70.0%	70.0%	94.9%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	SK IE Technology	SK enterm	Paju Energy Service	Narae Energy Service	Yeoju Energy Service	Boryeong LNG Terminal	Jeonnam Offshore Wind Power	Sinan Jeungdo Solar	Haetsal Solar Power	Solis
SK Co., Ltd.										
SK Innovation	61.2%	100.0%	51.0%	100.0%	100.0%	50.0%	51.0%	80.2%	100.0%	67.3%
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	61.2%	100.0%	51.0%	100.0%	100.0%	50.0%	51.0%	80.2%	100.0%	67.3%

Investee \ Investor	Busan Jeongkwan Energy Co., Ltd.	Ariul Happy Solar	IGE	Jeonnam 2 Offshore Wind Power	Jeonnam 3 Offshore Wind Power	Dangjin Happiness Solar	Haesola Energy	Iparking	SK Plug Hyverse	Lake Busa Happy Nanum Solar
SK Co., Ltd.										
SK Innovation	100.0%	100.0%	100.0%	55.0%	55.0%	100.0%	50.0%	44.5%	51.0%	70.0%
SK Energy										
SK Geo Centric										

SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	100.0%	55.0%	55.0%	100.0%	50.0%	44.5%	51.0%	70.0%

Investee \ Investor	Boryeong BlueHy Co., Ltd.	E&S City Gas Busan	Cowon Energy Service	Chungcheong Energy Service	Yeongnam Energy Service	Jeonnam City Gas Co., Ltd.	Kangwon City Gas Co., Ltd.	Jeonbuk Energy Service	E&S City Gas Busan Busan	Busan City Gas Co., Ltd.
SK Co., Ltd.										
SK Innovation	100.0%	100.0%							100.0%	
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
E&S City Gas Busan										100.0%
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										

Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	SK Telecom	SK Communications	F&U Credit Information Co., Ltd.	PS & Marketing	SK M&Service Co., Ltd.	SK O&S	Service Ace	Service Top	SK Telink	Happy Hanwool	SK Store
SK Co., Ltd.	30.6%										
SK Innovation											
SK Energy											
SK Geo Centric											
SK Enmove											
SK on											
E&S City Gas											
E&S City Gas Busan											
SK Telecom		100.0%	50.0%	100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SK Broadband											
PS & Marketing					100.0%						
SK Square											
One Store											
Incross											
Tmap Mobility											
SK Hynix											
SKC											
ISC											
SK Networks											
SK Magic											
SK ecoplant											
Renewus											

RenewOne											
SK Oceanplant											
SK discovery											
SK Gas											
Lotte SK Eneroot											
SK D&D											
SK eternix											
SK chemicals											
SK Forest											
Hweechan											
SK Materials Performance Co., Ltd.											
SK Consigned Management Real Estate Investment Company Co., Ltd.											
SK Specialty											
SK Siltron											
UNA Digital											
Subsidiaries Total	30.6%	100.0%	50.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	SK Broadband	Home & Service	Media S	SK Square	Dreamus Company	FSK L&S	11st	SK Planet	One Store	Infra Communications
SK Co., Ltd.				31.5%						
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom	99.1%									
SK Broadband		100.0%	100.0%							
PS & Marketing										
SK Square					38.7%	60.0%	98.1%	86.3%	45.8%	
One Store										100.0%
Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										

Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	99.1%	100.0%	100.0%	31.5%	38.7%	60.0%	98.1%	86.3%	45.8%	100.0%

Investee \ Investor	Incross	Mind Knock	SK Telecom CST1 Co., Ltd.	Content Wave	Lock Media	Tmap Mobility	YLP	Good Service	Seoul Air Bus Co., Ltd.	Logi Soft
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square	36.1%		55.4%	36.7%		62.4%				
One Store					100.0%					
Incross		100.0%								
Tmap Mobility							100.0%	100.0%	100.0%	100.0%
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	36.1%	100.0%	55.4%	36.7%	100.0%	62.4%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	SK Hynix	SK Hystec	SK Hyeng Co., Ltd.	Happy-More	SK Hynix System IC	Happy Narae	SK Key Foundry	SKC	SK Enpulse	SK Nexilis
SK Co., Ltd.								40.6%		
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square	20.1%									
One Store										
Incross										
Tmap Mobility										
SK Hynix		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			
SKC									99.1%	100.0%
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	20.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	40.6%	99.1%	100.0%

Investee \ Investor	SK PIC Global	SK leaveo	ISC	ITMTC	SK Networks	SK Networks Service Co., Ltd.	Minitit	Katini	SK Magic	SK Magic Service Co., Ltd.	SK Electlink
SK Co., Ltd.					43.9%						
SK Innovation											
SK Energy											
SK Geo Centric											
SK Enmove											
SK on											

E&S City Gas											
E&S City Gas Busan											
SK Telecom											
SK Broadband											
PS & Marketing											
SK Square											
One Store											
Incross											
Tmap Mobility											
SK Hynix											
SKC	51.0%	77.0%	45.0%								
ISC				100.0%							
SK Networks						100.0%	100.0%	100.0%	100.0%		52.8%
SK Magic										100.0%	
SK ecoplant											
Renewus											
RenewOne											
SK Oceanplant											
SK discovery											
SK Gas											
Lotte SK Eneroot											
SK D&D											
SK eternix											
SK chemicals											
SK Forest											
Hweechan											
SK Materials Performance Co., Ltd.											
SK Consigned Management Real Estate Investment Company Co., Ltd.											
SK Specialty											
SK Siltron											
UNA Digital											
Subsidiaries Total	51.0%	77.0%	45.0%	100.0%	43.9%	100.0%	100.0%	100.0%	100.0%	100.0%	52.8%

Investee \ Investor	En-core, Co., Ltd.	SK speedmate	Glowide	SK ecoplant	Seongju Tech	SK Ecoengineering	Gangdong Green Complex	Southeast Coast Offshore Wind Power	AP Development	SK Oceanplant
SK Co., Ltd.				63.2%						
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										

SK Hynix										
SKC										
ISC										
SK Networks	93.4%	100.0%	100.0%							
SK Magic										
SK ecoplant					100.0%	100.0%	78.8%	100.0%	100.0%	37.6%
Renewus										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	93.4%	100.0%	100.0%	63.2%	100.0%	100.0%	78.8%	100.0%	100.0%	37.6%

Investee \ Investor	Samkang S&C	Changwon SG Energy	Renew Energy Chungbuk	Renewus	BloomSKpurecell	HSolution	SK airplus	Renew Energy Gyeonggi	Renew Energy Gyeongin	Renew Energy Chungcheong
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant		65.1%	96.3%	100.0%	60.0%	55.0%	100.0%			
Renewus								100.0%	100.0%	100.0%
RenewOne										
SK Oceanplant	96.6%									

SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	96.6%	65.1%	96.3%	100.0%	60.0%	55.0%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	Renew Land Gyeongju	Renew Energy Gyeongbuk	Renew Liquid Seonam	Renew Liquid Honam	Renew Land Sin-Gyeongju	Green Soonchang	Green Hwasoon	Gokseong Environment	Dalseong Clear Water	Gyeongsan Clear Water
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										

SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	Renew Logistics Inder	RenewOne	Renewlogis	Renewcon Daewon	Renewland Cheongju	Renewenergy Green	Renewenergy Daewon	Renewenergy Metro	Renewenergy Saeahan	Renewenergy Jeonnam
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant		100.0%								
Renewus	100.0%									
RenewOne			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	Renewenergy Chungbuk Chungnam	SK plasma	SK Gas	SK Advanced	Ulsan GPS	Dangjin Eco Power	G-Energy	Lotte SK Eneroot	Ulsan Eneroot 2	Ulsan Eneroot 3

SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne	100.0%									
SK Oceanplant										
SK discovery		85.0%	72.2%							
SK Gas				45.0%	99.5%	54.9%	50.0%	50.0%		
Lotte SK Eneroot									100.0%	100.0%
SK D&D										
SK eternix										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	100.0%	85.0%	72.2%	45.0%	99.5%	54.9%	50.0%	50.0%	100.0%	100.0%

Investee \ Investor	Taehwa Eneroot 1	Taehwa Eneroot 2	SK D&D	D&D Investment	DDIOS108	D&D Property Solutions	DDISFPFV	SK eternix	Jindo Sanwol Solar Power Co., Ltd.	SK chemicals
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										

SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne										
SK Oceanplant										
SK discovery			31.3%					31.0%		40.9%
SK Gas										
Lotte SK Eneroot	100.0%	100.0%								
SK D&D				100.0%	100.0%	100.0%	100.0%			
SK eternix									100.0%	
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	31.3%	100.0%	100.0%	100.0%	100.0%	31.0%	100.0%	40.9%

Investee \ Investor	SK Bioscience	Entis	JSI	SK Chemicals Daejeong	SK Multi-Utility	Proptier	SK Biopharmaceuticals	SK Forest	Hweechan	SK Pinx
SK Co., Ltd.							64.0%	100.0%	100.0%	
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										
SK Hynix										
SKC										

ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne										
SK Oceanplant										
SK discovery						66.5%				
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals	66.4%	50.0%	40.0%	50.0%	100.0%					
SK Forest										
Hweechan										100.0%
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Specialty										
SK Siltron										
UNA Digital										
Subsidiaries Total	66.4%	50.0%	40.0%	50.0%	100.0%	66.5%	64.0%	100.0%	100.0%	100.0%

Investee \ Investor	SK REITs Management	SK Trichem	SK Resonac	SK Materials Performance	JS1	SK Materials JNC	SK Materials Group	SK Consigned Management Real Estate Investment Company Investor	Clean Energy Consigned Management Investor
SK Co., Ltd.	100.0%	65.0%	51.0%	100.0%		51.0%	75.0%	32.4%	
SK Innovation									
SK Energy									
SK Geo Centric									
SK Enmove									
SK on									
E&S City Gas									
E&S City Gas Busan									
SK Telecom									
SK Broadband									
PS & Marketing									
SK Square									
One Store									
Incross									
Tmap Mobility									
SK Hynix									
SKC									
ISC									
SK Networks									
SK Magic									
SK ecoplant									
Renewus									
RenewOne									
SK Oceanplant									
SK discovery									
SK Gas									

Lotte SK Eneroot									
SK D&D									
SK eternix									
SK chemicals									
SK Forest									
Hweechan									
SK Materials Performance Co., Ltd.					50.0%				
SK Consigned Management Real Estate Investment Company Co., Ltd.									100.0%
SK Specialty									
SK Siltron									
UNA Digital									
Subsidiaries Total	100.0%	65.0%	51.0%	100.0%	50.0%	51.0%	75.0%	32.4%	100.0%

Investee \ Investor	Total Value No. 1 entrusted management real estate Investor	Clean Industry Real Entrusted Management Real Estate Investment Company	SK Specialty	Happy Donghaeng	SK Siltron	Happy Chaewoom	SM Core	Ackerton Technology Service	UNA Engineering	TIMOR HOLDINGS
SK Co., Ltd.			100.0%		51.0%		26.6%	50.0%		
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK on										
E&S City Gas										
E&S City Gas Busan										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
One Store										
Incross										
Tmap Mobility										
SK Hynix										
SKC										
ISC										
SK Networks										
SK Magic										
SK ecoplant										
Renewus										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
SK eternix										
SK chemicals										
SK Forest										90.9%
Hweechan										
SK Materials Performance Co., Ltd.										
SK Consigned Management Real Estate Investment Company Co., Ltd.	100.0%	100.0%								
SK Specialty				100.0%						

SK Siltron						100.0%				
UNA Digital									98.0%	
Subsidiaries Total	100.0%	100.0%	100.0%	100.0%	51.0%	100.0%	26.6%	50.0%	98.0%	90.9%

* Affiliation of Globe Wide to the group from January 2, 2025

B. Name of the affiliated company

- Name of the affiliated company: SK Chemicals Co., Ltd. (corporate registration number: 131111-0501021)

C. A system diagram which allows for the identification of the status of control, subordination and investment among the affiliated companies

☞ Refer to "XII. Detailed Tables - 2. Affiliates - (Status of Investments between Affiliates)."

D. Where there is a body or an organization that adjusts the business or interests between affiliates, their status

- Not applicable

E. Where there is a company which directly or indirectly influences the management of the Company among the affiliates, the relevant company's name and details

- Not applicable

F. Status of the concurrent positions held by the executives between the Company and the affiliates

(Reference date: 2024.12.31)

Classification		Status of concurrent positions held			
Name	Position	Company Name	Position	Time of appointment	Whether full-time or not
Jeon Kwang Hyun	Non-Executive Director	SK Gas	Non-Executive Director	2023.03.23	Part-time
		SK discovery	CEO and President	2023.03.29	Full-time
Ahn Jae Hyun	CEO and President	SK bioscience	Non-Executive Director	2023.03.27	Part-time
Cho Honghee	Outside Director	Meritz Financial Group	Outside Director	2022.03.24	Part-time

※The above appointment date is the most recent appointment date.

(Reference date: 2024.12.31)

(Unit: KRW one million)

Purpose of investment	Number of companies invested in			Total amount of investment			
	Listed	Unlisted	Total	Beginning book value	Increase (decrease)		Ending book value
					Trust Agreement (Disposed)	Assessed Gains and losses	
Management participation	1	12	13	455,823	-11,420	-3,025	441,378
General investment	-	-	-	-	-	-	-
Simple investment	1	7	8	60,037	2,129	1,312	63,478
Total	2	19	21	515,860	-9,291	-1,713	504,856

※For the detailed status, refer to "Detailed Table-3. Investments in Other Corporations."

X. Transactions with Major Shareholders and Related Parties

1. Credit Exposure for major shareholders, etc.

A. Credit exposure for major shareholders, etc.

- Not applicable

B. Credit extensions, etc., to parties other than major shareholders

[SK chemicals]

The details of the payment guarantees provided for the related parties as of the end of the reporting period are as follows.

(Reference date: 2024.12.31)

(Unit: 1,000 RMB)

Name of related parties	related party	Period for filing statement	Amount of debt guaranteed		Period of debt guarantee	Details of transaction (balance)		
	Classification		Currency	Amount		Beginning of period	Change	End of period
SK Chemicals (Yantai)Co.,LTD	Subsidiary	KEB Hana Bank (China)	RMB	76,800	2022.11.29-2025.11.28	96,000	(19,200)	76,800
			RMB	54,000	2024.04.09-2025.04.08	54,000	-	54,000
			RMB	49,200	2024.05.22-2025.08.21	-	49,200	49,200
	Subtotal		RMB	180,000	-	150,000	30,000	180,000
Shuye-SK Chemicals (Shantou) Co.,Ltd.	Subsidiary	KB Limited Guangzhou Branch	RMB	60,000	2024.10.31-2027.11.12	-	60,000	60,000
			RMB	70,000	2024.10.31-2026.11.13	-	70,000	70,000
		Bank of China Shantou Branch	RMB	40,000	2024.12.13-2029.12.31	-	40,000	40,000
	Subtotal		RMB	170,000	-	-	170,000	170,000

※ In addition to the above guarantees, the Company has entered into an agreement to guarantee the unpaid fuel costs and related liabilities arising from the LNG supply contract between its subsidiaries, SK Multi-Utility Co., Ltd. and SK Gas International, PTE., Ltd.

※ The Company has entered into agreements for cash deficiency support and collateral provisions for the project financing of its subsidiary, SK Multi-Utility Co., Ltd.

2. Transfer of Assets with Major Shareholders, Etc.

- Not applicable

3. Business Transactions with Major Shareholders

- Not applicable

4. Transactions with Stakeholders other than Major Shareholders

A. Details of key transactions with related parties

The details of major transactions conducted with related parties for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Name of related parties	Sales	Other income, asset sales, etc. (Note 1)	Purchase	Other expenses, capital expenditures, etc. (Note 1, 2)
Controlling company	SK Discovery Co., Ltd.	251,051	443,471	-	1,421,232
Affiliates and joint ventures	Entis Co., Ltd.	1,976,246	5,194,172	-	2,704
	JSI Co., Ltd.	158,760	129,588	82,596	77,127
	HDC Polyall Co., Ltd.	8,857,217	-	-	-
Others	SK Gas Co., Ltd.	1,069,242	28,396	39,033,936	6,193,338

	SK Plasma Co., Ltd.	2,103,721	953,359	-	3,009
	SK Advanced Co., Ltd.	5,030,855	39,791	7,158,466	262,434
	Huvis Co., Ltd.	398,400	-	7,090,141	-
	SK ecoplant Co., Ltd.	-	-	-	96,069,734
	SK Ecoengineering Co., Ltd.	238,933	417,868	-	134,084,147
	SK Networks Co., Ltd.	4,418,590	-	13,130,285	141,195
	SK NETWORKS HONGKONG	-	-	22,436,024	-
	SK Energy Co., Ltd.	18,850,136	25,507,048	-	534,352
	SK Geo Centric Co., Ltd.	-	-	2,948,095	-
	SK Co., Ltd.	-	-	-	21,335,902
	SK Hynix Co., Ltd.	-	-	-	27,800
	Happy Narae Co., Ltd.	-	-	1,223,173	8,825,635
	Others	4,995,995	51,179,810	799,280	81,391,676
	Total	48,349,146	83,893,503	93,901,996	350,370,285

(Note 1) Other income and other expenses include the exchange transactions of inventory assets under the LNG volume exchange contract.

(Note 2) The consolidated companies acquired tangible assets worth 244.05 billion KRW from SK eco engineering Co., Ltd. and others during the period.

<Previous period>

(Unit: KRW one thousand)

Classification	Name of related parties	Sales	Other income, asset sales, etc.	Purchase	Other expenses, capital expenditures, etc. (Note 1)
Controlling company	SK Discovery Co., Ltd.	31,818	509,321	-	1,421,634
Affiliates and joint ventures	Entis Co., Ltd.	1,661,857	4,866,953	-	429
	JSI Co., Ltd.	184,240	124,458	88,440	87,014
	HDC Polyall Co., Ltd.	10,210,258	-	-	-
Others	SK Gas Co., Ltd.	351,960	-	6,709,690	3,495,417
	SK Plasma Co., Ltd.	3,029,323	421,576	-	15,251
	SK Advanced Co., Ltd.	4,212,839	746,425	8,048,471	359,801
	Huvis Co., Ltd.	558,924	-	14,815,138	-
	SK Ecoplant Co., Ltd. (Note 2)	-	-	-	22,157,967
	SK Ecoengineering Co., Ltd.	150,322	141,477	-	221,460,600
	SK Networks Co., Ltd.	12,283,871	-	10,897,571	136,882
	SK NETWORKS HONGKONG	-	-	18,396,661	-
	SK Energy Co., Ltd.	27,098,647	-	-	2,366,345
	SK Geo Centric Co., Ltd.	-	-	4,129,688	-
	SK Co., Ltd.	-	-	-	14,214,426
	SK Hynix Co., Ltd.	898,088	-	-	9,399
	Happy Narae Co., Ltd.	-	-	1,748,479	8,432,890
	Others	3,733,370	163	343,856	12,847,038
	Total	64,405,517	6,810,373	65,177,994	287,005,093

(Note 1) The consolidated companies acquired tangible assets worth 248.59 billion KRW from SK Eco Engineering Co., Ltd. and others during the previous period.

(Note 2) The consolidated companies entered into a construction contract for the Incheon Songdo Global R&PD Center with SK ecoplant Co., Ltd. for a total contract amount of 250.514 billion KRW during the previous period.

B. Key receivables and liabilities concerning the related parties

The details of major receivables and liabilities concerning the related parties as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification of the relationship of special interest	Name of related parties	Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Controlling company	SK Discovery Co., Ltd.	35,000	30,195	-	225,999
Affiliates and joint ventures	Entis Co., Ltd.	184,898	871,675	-	-
	JSI Co., Ltd. (Note 1)	-	2,440,000	12,778	8,762
	HDC Polyall Co., Ltd.	870,465	-	-	-
Others	SK Gas Co., Ltd.	34,037	831,911	619,724	1,543,115
	SK Plasma Co., Ltd.	117,223	171,969	-	305,269
	SK Advanced Co., Ltd.	526,877	-	438,187	2,733,875
	Huvis Co., Ltd.	97,152	-	-	-
	SK Ecoplant Co., Ltd.	-	164,426	-	5,077,681
	SK Ecoengineering Co., Ltd.	19,412	21,142	-	5,668,266
	SK Networks Co., Ltd.	72,606	-	1,556,203	-
	SK NETWORKS HONGKONG	-	428,029	3,098,484	-
	SK Energy Co., Ltd.	2,478,218	6,666,947	-	256,450
	SK Geo Centric Co., Ltd.	-	-	197,851	-
	SK Co., Ltd.	-	-	-	3,323,735
	Happy Narae Co., Ltd.	-	-	54,293	913,289
	Others	947,371	-	-	1,504,354
Total		5,383,259	11,626,294	5,977,520	21,560,795

(Note 1) The consolidated companies have set up an allowance for doubtful accounts for the full amount of the loan of 2.44 billion KRW to JSI Co., Ltd.

<End of the previous period>

(Unit: KRW one thousand)

Classification of the relationship of special interest	Name of related parties	Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Controlling company	SK Discovery Co., Ltd.	35,000	53,388	-	270,921
Affiliates and joint ventures	Entis Co., Ltd.	264,945	1,000,174	-	-
	JSI Co., Ltd. (Note 1)	-	3,040,000	12,144	6,699
	HDC Polyall Co., Ltd.	1,161,838	-	-	-
Others	SK Gas Co., Ltd.	32,263	765,252	423,297	4,054,341
	SK Plasma Co., Ltd.	87,315	183,098	-	400,325
	SK Advanced Co., Ltd.	475,938	-	-	2,848,072
	Huvis Co., Ltd.	91,520	-	5,325,863	-
	SK Ecoplant Co., Ltd.	-	164,426	-	8,855,000

	SK Ecoengineering Co., Ltd.	12,252	21,981	-	184,150
	SK Networks Co., Ltd.	785,678	-	1,148,477	-
	SK NETWORKS HONGKONG	-	208,843	1,570,700	-
	SK Energy Co., Ltd.	1,841,836	-	-	803,010
	SK Geo Centric Co., Ltd.	-	-	117,658	-
	SK Co., Ltd.	-	-	-	2,402,285
	SK Hynix Co., Ltd.	-	-	-	1,430
	Happy Narae Co., Ltd.	-	-	30,638	955,231
	Others	677,186	-	331,069	1,948,822
	Total	5,465,771	5,437,162	8,959,846	22,730,286

(Note 1) The consolidated companies have set up an allowance for doubtful accounts for the full amount of the loan of 3.04 billion KRW to JSI Co., Ltd.

C. Capital expenditure agreement amount with related parties

As of the end of the reporting period, the amount of capital expenditure agreements not yet incurred capital expenditure agreement amount with related parties is as follows.

(Unit: KRW one thousand)

Classification	Name of related parties	End of the current period	End of the previous period
Other related parties	SK Ecoengineering Co., Ltd. (Note 1)	51,000,000	167,718,600
Other related parties	SK ecoplant Co., Ltd. (Note 1)	130,922,000	226,633,000

(Note 1) It is an agreed amount in accordance with the tangible asset construction contract.

D. Key fund transactions with the related parties

The details of fund transactions with related parties during the current and previous period are as follows.

① Investments

<Previous period>

(Unit: KRW one thousand)

Classification	Name of related parties	Investments
Other related parties	Tiumbio Co., Ltd.	19,999,995

② Loan of funds

<Current period>

(Unit: KRW one thousand)

Classification	Target companies	Beginning of period	Recovered	End of period
SK Chemicals Co., Ltd.	JSI Co., Ltd. (Note 1)	3,040,000	(600,000)	2,440,000

(Note 1) The consolidated companies have set up an allowance for doubtful accounts for the full amount of the loan of 2.44 billion KRW to JSI Co., Ltd.

<Previous period>

(Unit: KRW one thousand)

Classification	Target companies	Beginning of period	Recovered	End of period
SK Chemicals Co., Ltd.	JSI Co., Ltd. (Note 1)	3,400,000	(360,000)	3,040,000

(Note 1) The consolidated companies have set up an allowance for doubtful accounts for the full amount of the loan of 3.04 billion KRW to JSI Co., Ltd.

② Payment of dividends

(Unit: KRW one thousand)

Classification	Company Name	Current period	Previous period
Controlling company	SK Discovery Co., Ltd.	4,586,985	10,585,349

XI. Additional Investor Protection Disclosures

1. Progress and Changes in Disclosure Content

A. Progress of and Changes in the Disclosure Content

Date of declaration	Title	Details of declaration	Status of progress of the matters declared	Note
2021.09.13	Investment in new facilities, etc.	- o Overview of Multi-Utility business investment - Purpose: Pursuing specialization in industrial power and steam supply business - Content: Limitations of Coal-Boiler Operations and Establishment of Carbon Neutral Net Zero System - Facility investment for promoting new electric business through fuel conversion based on needs (Subject to change during future implementation) - Investment amount: 428.1 billion KRW - Period of Investment 2022.05.01-2024.06.30	- o In progress - The LNG combined heat and power plant within the Ulsan factory is under construction with a completion target for the first half of 2025 -	- Schedule change due to delay in signing various contracts due to soaring costs - Change in investment amount due to increased fixed costs from rising raw material prices and inflation - (As of June 28, 2024 [Correction] Refer to new facility investment, etc.)

B. Progress of disclosure on the conclusion of single sales and supply contracts

(1) Status of progress

(Unit: KRW one million)

Date of declaration	Details of agreements	Contract amount Total amount	Sales and supply amount		Amount received for payment	
			Current period	Cumulative	Current period	Cumulative
2023.07.20	Contract: Supply contract for the diabetes complex Sidapvia (Sidapvia) Contract counterparty: ASTRAZENECA UK LIMITED Contract period: 2023.07.19-2029.12.31	-	-	-	-	-

※ The contract amount, sales and supply amount, and payment receipt amount are withheld from disclosure due to business confidentiality reasons and are therefore omitted

(2) Reason for non-receipt of payment

- The supply for the 2024 production volume has been carried out in accordance with the previously disclosed supply contract, and the details will be provided once the disclosure withholding period ends.

(3) Future plans for implementation

- For the 2025 production volume, production and supply will be carried out in accordance with the supply contract between the Company and ASTRAZENECA UK LIMITED.

2. Contingent Liabilities and Commitments

A. Important litigations

[SK Chemicals]

(Reference date: 2024.12.31)

Classification	Date the suit was filed	Parties to the suit	Details of litigations	Litigation value (KRW 100 million)	Status of progress	Future litigation schedule and response plan
Indemnity claims (Seoul Central District Court Case 2014GAHAP588147)	2014.12.01	Plaintiff: Korea Environmental Industry and Technology Institute Defendant: SK Chemicals and 12 others	The government will provide medical expenses and other support to victims who have suffered health damage from humidifier disinfectants, and will then file a subrogation claim after acquiring the claims for damages from the victims.	22.4	1st trial in progress	Date estimated
Claim for damages (Seoul Central District Court Case 2016GAHAP527467)	2016.05.16	Plaintiff: Kang Chan Ho and 297 others Defendant: 19 individuals, including SK chemicals	Claims for damages of the victims of health damages caused by the humidifier disinfectants-	112	1st trial in progress	Date estimated

Indemnity claims (Seoul Central District Court Case 2016GAHAP574210)	2016.12.01	Plaintiff: National Health Insurance Service Defendant: SK Chemicals and 12 others	The National Health Insurance Service will file a subrogation claim for the portion of the insurance benefits paid to victims who have suffered health damage from humidifier disinfectants, specifically for the amount borne by the National Health Insurance Service.	69.7	1st trial in progress	Date estimated
Patent infringement and damages claim (Supreme Court case number 2024Da224300)	2016.03.02	Plaintiff: Novartis AG Defendant: SK chemicals	The plaintiff company has filed a lawsuit for an injunction against patent infringement and compensation for damages related to the production and sale of dementia patches.	275	3rd trial in progress	Appeal to the Supreme Court (3rd instance)
Claim for damages (Seoul High Court case number 2024Na2003129)	2019.04.09	Plaintiff: Aekyung Industrial Co., Ltd Defendant: SK chemicals	A lawsuit for compensation for damages caused by humidifier disinfectants, related to the product liability contract between the Company and Aekyung Industrial Co., Ltd.	36.5	2nd trial in progress	Ruling of the second-instance court (2025.02.12)
Petition for cancellation of corrective order, etc. (Supreme Court case number 2024Du47180)	2019.11.18	Plaintiff: SK Chemicals and 1 other person Defendant: Fair Trade Commission	A request for the cancellation of the corrective order, public announcement order, and the penalty payment order (39 million KRW) imposed by the Fair Trade Commission for the unfair labeling practices of the humidifier disinfectant products.	1.6	Final ruling of the Supreme Court (3rd instance)	Dismissal due to non-prosecution of appeal (2024.10.08)
Indemnity claims (Seoul Central District Court Case 2020GAHAP607964)	Dec. 23, 2020	Plaintiff: Korea Environmental Industry and Technology Institute Defendant: SK Chemicals and 12 others	The government will provide medical expenses and other support to victims who have suffered health damage from humidifier disinfectants, and will then file a subrogation claim after acquiring the claims for damages from the victims.	2.9	1st trial in progress	-
Petition for cancellation of corrective order, etc. (Seoul High Court Case 2022NU67069)	2022.11.15	Plaintiff: SK Chemicals and 1 other person Defendant: Fair Trade Commission	A request for the cancellation of the corrective order, public announcement order, and penalty payment order imposed by the Fair Trade Commission regarding the advertising internet articles of the humidifier disinfectant products.	1.6	2nd trial in progress	Date estimated
Indemnity claims (Seoul Central District Court Case 2023GAHAP56291)	2023.04.04	Plaintiff: Republic of Korea Defendant: 19 individuals, including SK chemicals	The government will provide medical expenses and other support to victims who have suffered health damage from humidifier disinfectants, and will then file a subrogation claim after acquiring the claims for damages from the victims.	13.4	1st trial in progress	-
Claim for damages (Seoul Central District Court case number 2023GaHap102415)	2023.12.13	Plaintiff: The relevant government authority of the Republic of Korea, the Korea Disease Control and Prevention Agency (KDCA) Defendant: 26 individuals, including SK chemicals	On August 30, 2023, the Fair Trade Commission ruled that the defendants' actions related to the inclusion of vaccines and other products constituted unfair joint conduct. The Korea Disease Control and Prevention Agency (KDCA) filed a claim for damages amounting to 1.77 billion KRW, which is 10% of the contract amount, for violating the prohibition of unfair joint conduct under the Enforcement Decree of the National Contract Act.	10,000 KRW	1st trial in progress	-

※ The date of filing suit above is the date on which the suit was filed against the Company.

※ The above litigation amount is the total amount claimed by the plaintiff against the joint defendants as of the filing date. It may differ from the actual amount claimed by the plaintiff against the Company, and the litigation amount may change during the course of the lawsuit.

※ In connection with Seoul Central District Court Case 2014GAHAP588147 on the indemnity claim case and Seoul Central District Court Case 2016GAHAP574210 on the indemnity claim case, a part of the Company's land has been provisionally seized.

※ In addition to the above litigation, the Company is currently undergoing criminal proceedings for violating the Special Act on Remedy for Damage Caused by Humidifier Disinfectants, on the grounds of submitting inaccurate opinions in response to the Ministry of Environment's request for data submission.

※ In addition to the litigation cases above, the Company is in the process of carrying out multiple lawsuits related to the patent invalidation and patent infringements in Korea and abroad with Novartis AG, and the outcomes of all litigation cases, including these, cannot be predicted as of the end of the current period.

※ All of the lawsuits above may have a financial impact on the Company depending on their results, and accordingly, the Company plans to minimize its losses by efficiently responding to the lawsuits.

※ The details above include the litigation cases of SK Chemicals before the split-off of the Company.

[SK bioscience]

(Reference date: 2024.12.31)

Classification	Date the suit was filed	Plaintiff	Defendant	Details of litigations	Litigation value	Status of progress
Prohibition of patent infringement related lawsuit	2024.12.19	Wyeth LLC, Pfizer Korea	SK Bioscience Co., Ltd.	Related to the 13-valent pneumococcal vaccine Injunction against patent infringement and claim for damages	KRW 100 million	Currently under Supreme Court proceedings (3rd instance)
Claims for damages	2023.12.13	Republic of Korea (Korea Disease Control and Prevention Agency)	SK Bioscience Co., Ltd.	Claim for damages related to actions prior to the spin-offs from SK discovery and SK chemicals-	10,000 KRW (Note 1)	1st trial in progress
Determination of unfair trade practices, etc. Lawsuit for cancellation request	2024.03.21	SK Bioscience Co., Ltd.	Trade Commission	Related to the 13-valent pneumococcal vaccine Request for the cancellation of the corrective order issued by the Trade Commission	105 million KRW	1st trial in progress

(Note 1) The litigation amount for this lawsuit is the total amount claimed by the plaintiff against SK discovery, SK bioscience, and other joint debtors as of the filing date. The litigation amount may change during the course of the lawsuit.

※ Provisioning liabilities were not appropriated for the litigation cases above since the outcomes could not be predicted as of the date of preparation of the report.

※ The above lawsuits may have a financial impact on the Company depending on the outcome, and the Company plans to minimize losses through efficient litigation responses.

[SK Multi-Utility]

(Reference date: 2024.12.31)

Classification	Date the suit was filed	Parties to the suit	Details of litigations	Litigation value (KRW 100 million)	Status of progress	Future litigation schedule and response plan

Violation of the Serious Accident Punishment Act (Ulsan District Court case number 2024GoDan205)	2024.01.23	Plaintiff: Prosecution Defendant: 2 individuals, including SK Multi-Utility Co., Ltd.	Criminal trial for the industrial accident caused by the overturning of a coal transport vehicle at the SKMU factory.	-	1st trial in progress	Ruling of the first-instance court (2025.03.06)

B. Status of the notes and checks for pledge or security

- Not applicable

C. Status of debt guarantee

Refer to "III. Financial Information - 3. Notes to the Consolidated Financial Statements - 24. Contingencies and Commitments" and "X. Transactions with Major Shareholders and Related Parties - 1. Credit Exposure for major shareholders, etc. - A. Credit exposure for those other than major shareholders, etc."

D. Other contingent liabilities, etc.

(1) Details of the agreement

[SK Chemicals] (Based on separate financial statements)

The details of the other agreements executed by the Company with financial institutions as of the date of preparation of disclosure documents are as follows.

Counterparty to the agreement	Details of the agreement
Hana Bank, etc.	Agreement with a limit of KRW 277 billion
	Trade finance agreement with a limit of USD 120 million and EUR 46.8 million
	Derivative product margin exemption agreement with a limit of USD 165.5 million and KRW 24 billion
Seoul Guarantee Insurance, etc.	Performance payment guarantee with a limit of KRW 21 million

[SK bioscience]

(1) Details of the agreement

As of the report preparation date, the agreements entered into by SK bioscience with financial institutions are as follows:

(Reference date: 2024.12.31)

Financial institution	Classification	Amount of limit	Amount executed
Hana Bank	Loans secured by accounts receivable	4 billion KRW	-
	Agreement on exemption of security deposit for derivatives	USD 73,000,000	-
Shinhan Bank	Loans secured by accounts receivable	3 billion KRW	-
	General corporate loan for working capital	5 billion KRW	-
	Derivatives (revolving transaction)	USD 11,000,000	-
Woori Bank	General corporate loan for working capital	5 billion KRW	-
	Facility capital loan (Note 1)	250 billion KRW	80 billion KRW
Suhyup Bank	Derivatives (revolving transaction)	15 billion KRW	USD 6,732,750
Korea Development Bank / NongHyup Bank	Acquisition financing (Note 2)	EUR 74,000,000	EUR 74,000,000
	General capital loan	EUR 125,000,000	EUR 125,000,000
JP Morgan Chase Bank (Note 3)	Derivatives (revolving transaction)	-	USD 19,281,827 AUD 661,527 EUR 50,000,000

(Note 1) Tangible assets worth 300,000 million KRW are provided as collateral for the facility financing loan.

(Note 2) SK bioscience has provided the equity securities of IDT Biologika GmbH and Technik-Energie-Wasser Servicegesellschaft mbH, which it acquired, as collateral.

(Note 3) The limit per payment date is USD 100,000,000, and the executed amount is the total transaction amount for December 2024.

(2) Collateral provided and other status

As of the report preparation date, the collateral provided by SK bioscience is as follows:

(Unit: KRW one thousand)

Classification	Details	Amount
Time deposit	Provision of collateral for treasury share association loans	1,600,000

[SK Multi-Utility]

(1) Details of the agreement

The details of the other agreements executed by SK Multi-Utility with financial institutions as of the date of preparation of disclosure documents are as follows.

(Reference date: 2024.12.31)

(Unit: KRW one thousand)

Financial institution	Classification	Amount of limit	Amount executed
Kookmin Bank and 8 other financial institutions	Long-term loan agreement I	264,850,000	252,000,000
Kyobo Life Insurance and 7 other financial institutions	Long-term loan agreement II	230,000,000	218,600,000
Lotte Capital and 2 other financial institutions	Short-term loan agreement	35,150,000	33,400,000

(2) Collateral provision and other status

As of the date of preparation of the disclosure document, the status of SK Multi-Utility's provision of collateral for loans from financial institutions and contractual obligations is as follows.

(Reference date: 2024.12.31)

(Unit: KRW one thousand)

Security right holder	Assets provided for collateral	Details	Amount
Kookmin Bank and 13 other financial institutions	Right to collateral security for deposits	Collateral for debt	636,000,000
	Right to collateral security for insurance		
	Proof of beneficiary right under the real estate security trust contract		

3) Status of future trade receivables' securitization

- Not applicable

3. Sanctions and Regulatory Measures

A. Sanction status [SK chemicals]

Date	Institution of sanction	Target of sanction	Details of penalties or actions taken	Monetary penalty amount	Reason	Applicable laws and regulations	Status of performance	Countermeasure
2022.08.11	Cheongju District Court	employees of the Company	Penalty imposed	KRW 1 million	Failure to report construction changes when expanding cargo lifts	Article 111 Subparagraph 1, Article 14 Paragraph 1, Article 70, Paragraph 1 and Article 69, Paragraph 2 of the Criminal Act	Penalty paid	Efforts made to prevent a recurrence

2022.08.11	Cheongju District Court	SK chemicals	Penalty imposed	KRW 2 million	Failure to report construction changes when expanding cargo lifts	Article 111, Subparagraph 1, Article 14, Paragraph 1, and Article 112, Paragraph 3 of the Building Act	Penalty paid	Efforts made to prevent a recurrence
2022.08.18	Geum River Basin Environmental Office	SK chemicals Cheongju Plant	Fines imposed	KRW 1.44 million	Failure to complete safety education	Article 33 Paragraph 2 of the Chemical Substances Control Act	Fines paid	Efforts made to prevent a recurrence
2022.08.18	Geum River Basin Environmental Office	SK chemicals Cheongju Plant	Improvement order	-	Violation of labeling standards (Insufficient labeling of hazardous chemical handling facilities in old indoor storage facilities)	Article 34-2, Paragraph 1, Subparagraph 5 of the Chemical Substances Control Act	Corrective action	Efforts made to prevent a recurrence
2022.08.18	Geum River Basin Environmental Office	SK chemicals Cheongju Plant	Improvement order	-	Failure to conduct self-inspection and failure to maintain inspection records -	Article 34-2 Paragraph 1 Subparagraph 6 of the Chemical Substances Control Act	Corrective action	Efforts made to prevent a recurrence
2022.08.18	Geum River Basin Environmental Office	SK chemicals Cheongju Plant	Improvement order	-	Failure to obtain change permit (Using the indoor storage and room temperature storage without change permit)	Article 34-2, Paragraph 1, Subparagraph 8 of the Chemical Substances Control Act	Corrective action	Efforts made to prevent a recurrence
2022.10.27	Fair Trade Commission	SK chemicals	Prohibition and public announcement order Imposition of a penalty fine	KRW 35 million	The Fair Trade Commission issued a prohibition and public announcement order, along with the imposition of a penalty fine, regarding advertising articles related to disinfectant products	Article 3 of the Act On Fair Labeling And Advertising	Penalty paid Administrative lawsuit	Efforts made to prevent a recurrence
2023.04.06	Cheongju District Court	SK Chemicals Co., Ltd. And employees of the Company	Penalty imposed	KRW 2 million	Violation of labeling standards, failure to conduct self-inspection and failure to keep records in the inspection ledger, and failure to obtain change permit	Article 34-2, Paragraph 1, Subparagraphs 5, 6, and 8 of the Chemical Substances Control Act	Penalty paid	Efforts made to prevent a recurrence
2023.07.12	Personal Information Protection Commission	SK chemicals	Fines imposed / corrective order issued	KRW 1 million	Violation of the Personal Information Protection Act	Article 26 of the Personal Information Protection Act	Corrective action, Early payment of fines	Efforts made to prevent a recurrence
2023.08.29	Central Regional Employment and Labor Office Seongnam Branch	SK chemicals Pangyo Research Center	Fines imposed / corrective order issued	KRW 500,000	Failure to complete specialized safety education	Article 29, paragraph 3 of the Occupational Safety and Health Act	Early payment of fines	Efforts made to prevent a recurrence
2024.04.24	Daejeon Food and Drug Administration	SK chemicals	Suspension of manufacturing for the relevant item for 1 month	-	Failure to comply with administrative instructions (Omission of reporting shipment information for GMP evaluation-targeted items before market release)	Article 38, Paragraph 1, Article 69, Paragraph 1 of the Pharmaceutical Affairs Act, Rule 48, Subparagraph 14 of the Regulations on the Safety of Pharmaceuticals and Related Products, Article 76 of the Pharmaceutical Affairs Act, and Article 95 of the Regulations on the Safety of Pharmaceuticals and Related Products, related to [Appendix 8] II. Individual Standards, Item 47	The relevant item Suspension of manufacturing	Efforts made to prevent a recurrence

[SK bioscience]

Date	Institution of sanction	Target of sanction	Details of punishment or action	Monetary penalty amount	Reason	Applicable laws and regulations	The company's compliance status regarding penalties or actions taken	The company's measures for preventing recurrence
2023.07.12	Personal Information Protection Commission	SK Bioscience Co., Ltd. (Note)	Fines imposed / corrective order issued	KRW 1 million	Violation of the Personal Information Protection Act	Article 26 of the Personal Information Protection Act (Limitation on the processing of personal information due to outsourcing)	The administrative fine has been voluntarily paid, and the corrective order has been fully implemented	Establishment of training and monitoring procedures related to personal information
2024.02.22	Trade Commission	SK Bioscience Co., Ltd. (Note)	Issuance of a corrective action order, penalty payment order, and a public announcement order regarding the fact of receiving the corrective action order and penalty payment order	15 million KRW	Unfair trade practices	Article 4 of the Act on the Investigation of Unfair Trade Practices and the Relief of Industrial Damage (Prohibition of unfair trade practices)	Application for suspension of execution regarding the public announcement order for the payment of the penalty and the receipt of the corrective order, and the disposition of corrective orders, etc. Filing of an administrative lawsuit seeking cancellation	Improvement of related processes

[IDT Biologika]

- Not applicable

[SK Multi-Utility]

Date	Institution of sanction	Target of sanction	Details of penalties or actions taken	Monetary penalty amount	Reason	Status of performance	Applicable laws and regulations	Countermeasure
2022.12.20	Ulsan Branch, Busan Regional Employment and Labor Administration	SK Multi-Utility	Partial (all unloading and transporting work at the coal loading dock) order to stop work	-	Occurrence of a serious accident	Work suspension lifted following the completion of safety and health measures after the suspension.	Article 55 Paragraph 1 of the Occupational Safety and Health Act and Article 3 of the Enforcement Regulations of the Occupational Safety and Health Act	Efforts made to prevent a recurrence

B. Sanctions received from the Korea Exchange and others

[SK bioscience]

Date	Institution of sanction	Target of sanction	Details of punishment or action	Monetary penalty amount	Reason	Applicable laws and regulations	The company's compliance status regarding penalties or actions taken	The company's measures for preventing recurrence

2023.07.11	Korea Marketplace	SK Bioscience Co., Ltd. (Note)	Disclosure violation penalties	KRW 8 million	Delayed disclosure of the conclusion of a single sales and supply contract	Korea Securities Exchange Disclosure Regulations Article 35 and Article 38-2	Payment of sanctions for disclosure violations	Implementation of internal training and establishment of a related disclosure system

C. Status of uncollected short-term trading profits

- Not applicable

4. Subsequent Events Such as Major Issues Which Arose After the Reference Date of Preparation

A. Major issues which arose after the reference date of preparation

[SK Chemicals]

- Not applicable

[SK bioscience]

- Not applicable

[IDT Biologika]

- Not applicable

[SK Multi-Utility]

- Not applicable

B. Post-merger information

1) Decision to Transfer the Bio-energy Business

The Company decided to transfer its bioenergy business to 'Han & Co. 16 LLC' through a Board resolution on February 5, 2020, and completed the business transfer on May 29, 2020. Accordingly, we have submitted a report on major issues, a report on the completion of the merger, etc. as follows.

[Related Disclosure: [Correction] Major Event Report (Decision on Business Transfer), July 14, 2020]

1. Business transferred		Bio-energy business		
2. Key details of the business transferred		The bioenergy business involves the procurement, manufacturing, production, distribution, purchase, and sale of biodiesel/bioheavy oil and its raw materials based on bio-based raw materials, as well as the research and development of biodiesel/bioheavy oil/bio-based marine fuel/bio-aviation fuel.		
3. Transfer price (KRW)		385,193,238,137		
- Financial details (KRW)		Business division to be transferred (A)	Entirety of the Company (B)	Weight (%) (A/B)
	Amount of assets	148,648,667,135	1,950,805,010,838	7.62
	Sales revenue	276,993,917,479	1,367,719,213,257	20.25
4. Purpose of transfer		Securing investment funds for management efficiency, focusing on eco-friendly material businesses, and ensuring future growth drivers		
5. Impact of transfer		Through this business transfer, the Company aims to enhance the value of its existing business and secure investment funds for new businesses, including M&A.		

6. Scheduled transfer date	Contract execution date	Feb. 5, 2020
	Base date of transfer	2020.05.29
7. Counterparty to the transaction	Company name (name)	SK Eco Prime Co., Ltd.
	Capital stock (KRW)	7,750,500,000
	Main Business	Bio-energy business
	Location of head office (address)	Building No. 46, 718, Cheoyong-ro, Nam-gu, Ulsan, (Hwangseong-dong)
	Relationship with the Company	-
8. Payment of transfer price		(1) Form of payment The Company received KRW 382.5 billion in cash from the transferee under the contract. (2) Period of payment The entire transfer proceeds are paid to the Company on the date of closing of the transaction, and the amount adjusted according to the business transfer contract after the closing of the transaction is settled within 15 business days from the date on which the closing statement of financial position is finalized. (3) Adjustment of the transfer price After this transaction is closed, the transferor and transferee will mutually settle the amount of adjustment by adding up the adjustment amount according to the adjustment related to the net assets of the transfer business and the appraisal right, and the adjustment of the price under the service contract. Accordingly, the transferee agreed to pay an additional KRW 2,693,238,137 to the transferor on July 13, 2020. (4) The expected schedule and transfer price in the above may change in the future.
9. Matters concerning the external evaluation	Whether applicable for external evaluation	Yes
	Basis and reasons	Assessment of adequacy pursuant to Article 165-4, Paragraph 1, Subparagraph 2 and Paragraph 2 of the Capital Markets and Financial Investment Business Act, and Article 176-6, Paragraph 3 of the Enforcement Decree of the same Act.
	Name of external evaluation institution	Samil PwC
	Period of external evaluation	2020.01.03 - 2020.02.04
	Opinion of external evaluation	Unqualified opinion
10. Whether a special resolution at shareholders' meeting is required		Yes
- Scheduled date of shareholders' meeting		2020.03.17
- Matters related to stock purchase rights	Conditions for the exercise	In accordance with Article 374-2 of the Commercial Act and Article 165-5 of the Financial Investment Services and Capital Markets Act, shareholders who are registered in the Company's shareholder register as of the record date for the shareholder register, and who notify the Company in writing of their opposition to the resolution by the day before the General Meeting of Shareholders, may exercise their stock purchase rights. This applies to the shares they own, provided that they prove they acquired such shares before the announcement of the Board of Directors' resolution, or prove they entered into a transaction related to those shares (such as a purchase contract, termination of a loan agreement, or any other legal act related to the acquisition of such shares)

		by the next business day following the date of the public announcement of the Board resolution. However, appraisal right is granted only for the shareholders who have continuously owned the shares from the reference date of confirmation of the list of shareholders until the date of exercise of the appraisal right, while for the shares reacquired after sale within the same period, the right to purchase shares will be lost, and once the relevant right is exercised, it cannot be revoked. Furthermore, if any shareholder who has previously given written notice of his or her objection to the resolution of the Board of Directors of the business transfer approves of the business transfer at the general shareholders' meeting, he or she cannot exercise the appraisal right. As the company of transferring business, the Company is a listed corporation on the securities market, and thus it must purchase the relevant shares within 1 month from the end of the period of claim for share purchase regarding the claim.
	Scheduled purchase price	63,068
	Proceedings, method, period, and location	(1) Method of expressing the intention to object In accordance with Article 374-2 of the Commercial Act and Article 165-5 of the Financial Investment Services and Capital Markets Act, a shareholder registered in the Company's list of shareholders as of the final date of the list of shareholders (however, this is limited to those who continue to hold shares until the date of notice) and seeking to exercise the appraisal right must notify the Company of the intention to oppose the resolution of the Board of Directors on the business transfer in writing before the general shareholders' meeting. However, if a beneficial shareholder has consigned his or her share certificates to a securities company (a financial investment business operator), he or she must notify the securities company by 3 business days before the date of the General Meeting of Shareholders, and the securities company must gather the expressed intention of opposition of the beneficial shareholder and so notify the Korea Securities Depository, the depository institution, by 2 business days before the date of the general shareholders' meeting. The Korea Securities Depository must notify the Company of the intention to oppose on behalf of the beneficial shareholders before the date of the General Meeting of Shareholders. (2) Method of claim to purchase In accordance with Article 374-2 of the Commercial Act and Article 165-5 of the Financial Investment Services and Capital Markets Act, if a shareholder who opposes a resolution of the Board of Directors on the business transfer gives a written notice to the company of his or her intention to oppose the resolution prior to the General Meeting of Shareholders, he or she can claim to purchase some or all of the shares he or she owns (limited to the shares continuously held from the date on which the list of shareholders is finalized until the date of exercise of the appraisal right) by giving the Company a written statement of the types and the number of the shares within 20 days of the date of the resolution of the general meeting. However, in the case of beneficial shareholders who have entrusted their shares to a securities company (financial investment business),

		they can exercise their stock purchase rights by submitting a stock purchase request form to the respective securities company by two business days before the end of the stock purchase request period. In this case, the depositary institution, Korea Securities Depository (KSD), will submit the request on their behalf. (3) Period of exercise ① Receipt of the expression of the intention to oppose the business transfer: March 2, 2020 - March 16, 2020 ② Period of the exercise of the appraisal right: March 17, 2020 - April 6, 2020 (4) Place of receipt ① Registered shareholder: IR Office, SK Chemicals (ECO Lab), 310, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do IR Office(02-2008-2726) ② Beneficial shareholder who has consigned securities to the securities company: the relevant securities company
	Payment scheduled date and method	(1) Period of the scheduled payment of share purchase price The payment will be made within 1 month from the end of the period of claim for share purchase. (2) Method of payment for the share purchase price ① Registered shareholder: Transfer to the shareholder's reported account ② Beneficial shareholder: Transfer to the relevant securities company's own account
	Details related to the restrictions on the appraisal right	In accordance with the provisions of Article 374-2 of the Commercial Act, a shareholder who opposes a resolution of the Board of Directors on the business transfer can claim to the relevant corporation to purchase the shares he or she owns in writing with specifics on the type and number of the shares within 20 days from the date of the resolution of the General Meeting of Shareholders if he or she gives notice the Company of the intention to oppose the board resolution before the General Meeting of Shareholders. However, shares subject to the appraisal right are limited to the shares held continuously from the date on which the list of shareholders is finalized until the date of exercise of the appraisal right.
	Effect on the contract	This contract may be canceled if the amount of the appraisal right exercised by the Company's shareholders in opposition to this business transfer exceeds KRW 70 billion. However, this contract will not be canceled if the transferee agrees to take over from the transferor all of the shares for which the appraisal right is exercised in excess of KRW 70 billion.
11. Date of Board resolution (decision date)		Feb. 5, 2020
- Whether Outside Directors attended	Attended (people)	3
	Absent (people)	-
- Whether Auditors attended (members of the Audit Committee who are not Outside Directors)		-
12. Whether reporting to Fair Trade Commission is required		Not applicable

13. Whether contracts such as put option are executed	No
- Details of agreements	Not applicable

14. Other matters to be factored into investment decisions

(1) Transfer price

① The value of the business subject to transfer, assessed by Samil Accounting Corporation, an external evaluation institution, using the discounted cash flow method, was calculated at a minimum of KRW 331.059 billion and a maximum of KRW 437.332 billion, and no grounds were discovered to determine that KRW 382.500 billion, the actual transfer price of the Company, was inappropriate from the perspective of materiality.

② Prerequisites: For the transferee, approval of the Fair Trade Commission is required for this transaction since the transferee is subject to the business combination report. For the Company, it is a prerequisite to secure an approval via a special resolution of the General Meeting of Shareholders in relation to this transaction.

(2) Financial details

① The asset value of the business segment (A) subject to transfer in accordance with Subparagraph 3 above is based on the separate financial statements for the period from January 1, 2018, to December 31, 2018, with the asset value as of September 30, 2019. The asset value of the entire Company (B) is based on the consolidated financial statements for the period from January 1, 2018, to December 31, 2018, with the asset value as of December 31, 2018.

(3) Schedule

① The date of execution of the contract of Paragraph 6 above is the same as the date of resolution of the Board of Directors.

② The reference date of transfer of Paragraph 6 above is the scheduled date of transaction closing as of the time of disclosure, and the actual date of transaction closing is the 15th business day after the prerequisites are satisfied or the date agreed upon by both companies, and is subject to change according to related laws and regulations, consultations and approvals with related institutions.

(4) Expected share purchase price following the exercise of the appraisal right

① Price offered by the Company for consultation

- The purchase price of shares claimed pursuant to Article 374-2 of the Commercial Act and Article 165-5 of the Financial Investment Services and Capital Markets Act is, pursuant to the provisions of Article 176-7 Paragraph 3 of the Enforcement Decree of the Financial Investment Services and Capital Markets Act, the weighted arithmetic average price with the final market price as the weighted value, which is the price calculated by taking the arithmetic average again for the periods of the past 2 months from the date before the date of resolution of the Board of Directors related to the business transfer (in the event of an adjustment of the reference trading price due to ex-dividend or ex-rights during the same period, and if the period from the date of ex-dividend or ex-right to the date before the resolution of the Board of Directors is 7 days or longer), 1 month (in the case of an adjustment of the reference trading price due to ex-dividend or ex-rights during the same period, and if the period from the date of ex-dividend or ex-right to the date before the resolution of the Board of Directors is 7 days or longer), and 1 week.

- The scheduled share purchase price of Paragraph 10 above is based on the common stocks.

1) Common stocks

(Unit: KRW, stocks)

Date	Closing price	Trading volume	Closing price x Trading volume
2020-02-04	59,800	173,956	10,402,568,800
2020-02-03	58,000	201,037	11,660,146,000
2020-01-31	57,900	211,945	12,271,615,500
2020-01-30	60,600	220,656	13,371,753,600
2020-01-29	62,700	178,531	11,193,893,700
2020-01-28	64,100	209,174	13,408,053,400
2020-01-23	66,200	136,342	9,025,840,400
2020-01-22	66,300	116,713	7,738,071,900

2020-01-21	66,200	204,569	13,542,467,800
2020-01-20	67,500	306,994	20,722,095,000
2020-01-17	66,200	120,827	7,998,747,400
2020-01-16	66,100	111,298	7,356,797,800
2020-01-15	66,200	123,516	8,176,759,200
2020-01-14	67,000	203,912	13,662,104,000
2020-01-13	66,500	364,387	24,231,735,500
2020-01-10	69,000	1,292,254	89,165,526,000
2020-01-09	65,100	191,189	12,446,403,900
2020-01-08	63,100	312,351	19,709,348,100
2020-01-07	65,800	209,726	13,799,970,800
2020-01-06	66,400	261,860	17,387,504,000
2020-01-03	67,000	213,770	14,322,590,000
2020-01-02	66,700	450,033	30,017,201,100
2019-12-30	64,000	186,188	11,916,032,000
2019-12-27	63,000	164,722	10,377,486,000
2019-12-26	62,200	162,680	10,118,696,000
2019-12-24	63,100	343,835	21,695,988,500
2019-12-23	61,100	224,835	13,737,418,500
2019-12-20	60,500	134,781	8,154,250,500
2019-12-19	60,600	135,278	8,197,846,800
2019-12-18	60,500	135,718	8,210,939,000
2019-12-17	60,900	222,787	13,567,728,300
2019-12-16	62,000	165,194	10,242,028,000
2019-12-13	62,300	251,002	15,637,424,600
2019-12-12	62,200	467,190	29,059,218,000
2019-12-11	61,600	245,179	15,103,026,400
2019-12-10	61,400	426,739	26,201,774,600
2019-12-09	61,200	463,148	28,344,657,600
2019-12-06	62,700	318,627	19,977,912,900
2019-12-05	62,500	599,335	37,458,437,500
① A 2-month weighted arithmetic mean closing price			64,002
② A 1-month weighted arithmetic mean closing price			65,474
③ A 1-week weighted arithmetic mean share price			59,729
Arithmetic mean = (①+②+③)/3			63,068

2) Preferred stocks

(Unit: KRW, stocks)

Date	Closing price	Trading volume	Closing price x Trading volume
2020-02-04	27,800	114,609	3,186,130,200
2020-02-03	26,550	31,995	849,467,250
2020-01-31	26,200	33,666	882,049,200
2020-01-30	27,200	32,952	896,294,400

2020-01-29	28,250	26,641	752,608,250
2020-01-28	28,350	60,402	1,712,396,700
2020-01-23	29,500	94,340	2,783,030,000
2020-01-22	29,500	29,316	864,822,000
2020-01-21	29,550	57,162	1,689,137,100
2020-01-20	30,450	92,368	2,812,605,600
2020-01-17	30,150	41,821	1,260,903,150
2020-01-16	30,700	55,817	1,713,581,900
2020-01-15	30,650	126,370	3,873,240,500
2020-01-14	31,200	146,303	4,564,653,600
2020-01-13	31,400	395,787	12,427,711,800
2020-01-10	35,200	2,036,103	71,670,825,600
2020-01-09	28,000	46,202	1,293,656,000
2020-01-08	27,200	103,109	2,804,564,800
2020-01-07	29,350	81,793	2,400,624,550
2020-01-06	29,850	141,548	4,225,207,800
2020-01-03	30,300	137,130	4,155,039,000
2020-01-02	31,000	425,014	13,175,434,000
2019-12-30	28,800	29,191	840,700,800
2019-12-27	28,650	46,820	1,341,393,000
2019-12-26	28,550	46,764	1,335,112,200
2019-12-24	28,900	126,158	3,645,966,200
2019-12-23	28,200	80,655	2,274,471,000
2019-12-20	28,000	56,819	1,590,932,000
2019-12-19	28,650	55,107	1,578,815,550
2019-12-18	28,900	70,090	2,025,601,000
2019-12-17	29,200	85,888	2,507,929,600
2019-12-16	29,950	120,789	3,617,630,550
2019-12-13	30,400	130,165	3,957,016,000
2019-12-12	30,100	580,463	17,471,936,300
2019-12-11	28,900	265,597	7,675,753,300
2019-12-10	28,750	695,696	20,001,260,000
2019-12-09	27,800	151,961	4,224,515,800
2019-12-06	29,800	168,655	5,025,919,000
2019-12-05	31,000	383,292	11,882,052,000
① A 2-month weighted arithmetic mean closing price			31,196
② A 1-month weighted arithmetic mean closing price			32,724
③ A 1-week weighted arithmetic mean share price			27,377
Arithmetic mean = (①+②+③)/3			30,432

② Method of handling if an agreement cannot be reached

In accordance with Article 165-5 of the Capital Markets and Financial Investment Business Act, if no agreement is reached, the purchase price shall be based on the transaction price of the relevant shares traded on the securities market prior to the Board resolution date and shall be calculated according to the method prescribed in Article 176-7 of the Enforcement Decree of the same Act. If a shareholder who has requested the purchase disagrees with the purchase price, they may request the court to decide the purchase price.

③ Be advised that the share purchase price and matters concerning the exercise of the appraisal right may be changed during the consultation with shareholders if and as needed.

(4) Other important matters

- The details and schedule above are subject to change depending on the progress achieved such as consultation and approval with related institutions.
- In accordance with Article 14 Paragraph 3 of this business transfer contract, Han & Co No.16 Co., Ltd. has transferred its status as a party to the contract and all of its rights and obligations thereunder as of February 19, 2020, to K-Green System Co., Ltd., a 100% subsidiary of the company. K-Green System Co., Ltd. changed its trade name to K Eco Energy Co., Ltd. on March 17, 2020, and thereafter changed its trade name to SK Eco Prime on April 27, 2020. The corporation before and after the change of trade name is the same corporation.
- The details of "7. Counterparty to the transaction" were prepared as of the date of registration of June 5, 2020.

※ Relevant disclosure: Report on the closing of merger, etc. dated 2020.05.29 (business transfer)

[Related disclosure : Report on the closing of merger, etc. (business transfer), 2020.05.29]

I. Schedule

This report concerns the matters regarding the report on major issues dated February 5, 2020

[Decision on business transfer (corrected on February 25, 2020)]. For further details, refer to the disclosure made on the relevant date.

Procedure	Schedule
Board resolution and the execution of business transfer contract	February 5, 2020
Record date for confirmation of shareholders	February 20, 2020
Commencement of the closing of the list of shareholders	February 21, 2020
Completion of the closing of the list of shareholders	February 28, 2020
Notice of convocation of the General Meeting of Shareholders	February 28, 2020
Commencement of the receipt of the expression of intention to oppose the business transfer	March 2, 2020
Completion of the receipt of the expression of intention to oppose the business transfer	March 16, 2020
Extraordinary meeting of shareholders	March 17, 2020
Commencement of the appraisal right	March 17, 2020
Completion of the appraisal right	April 6, 2020
Date of transaction closing	May 29, 2020

※ This business transfer was executed by and between SK Chemicals (transferee) and Han & Co No. 16 Co., Ltd. (transferee) on February 5, 2020, and the transferee transferred its status as a party under the contract and all of its rights and obligations thereunder to K-Green System Co., Ltd., a 100% subsidiary of the company, on February 19, 2020. K-Green System Co., Ltd. changed its trade name to K Eco Energy Co., Ltd. on March 17, 2020, and thereafter changed its trade name to SK Eco Prime on April 27, 2020. The corporation before and after the change of trade name is the same corporation.

II. Changes in the equity interest such as the largest shareholder

- Not applicable

III. Exercise of the appraisal right

1. Share purchase price and the price determination method

1) Price offered by the Company for consultation

- KRW 63,068 per common stock
- KRW 30,432 per preferred stock

2) Method of calculation

The purchase price of shares claimed pursuant to Article 374-2 of the Commercial Act and Article 165-5 of the Financial Investment Services and Capital Markets Act is, pursuant to the provisions of Article 176-7 Paragraph 3 of the Enforcement Decree of the Financial Investment Services and Capital Markets Act, the weighted arithmetic average price with the final market price as the weighted value, which is the price calculated by taking the arithmetic average again for the periods of the past 2 months from the date before the date of resolution of the Board of Directors related to the business transfer (in the event of an adjustment of the reference trading price due to ex-dividend or ex-rights during the same period, and if the period from the date of ex-dividend or ex-right to the date before the resolution of the Board of Directors is 7 days or longer), 1 month (in the event of an adjustment of the reference trading price due to ex-dividend or ex-rights during the same period, and if the period from the date of ex-dividend or ex-right to the date before the resolution of the Board of Directors is 7 days or longer), and 1 week.

(1) Common stocks

(Unit: KRW, stocks)

Date	Closing price	Trading volume	Closing price x Trading volume
2020-02-04	59,800	173,956	10,402,568,800
2020-02-03	58,000	201,037	11,660,146,000
2020-01-31	57,900	211,945	12,271,615,500
2020-01-30	60,600	220,656	13,371,753,600
2020-01-29	62,700	178,531	11,193,893,700
2020-01-28	64,100	209,174	13,408,053,400
2020-01-23	66,200	136,342	9,025,840,400
2020-01-22	66,300	116,713	7,738,071,900
2020-01-21	66,200	204,569	13,542,467,800
2020-01-20	67,500	306,994	20,722,095,000
2020-01-17	66,200	120,827	7,998,747,400
2020-01-16	66,100	111,298	7,356,797,800
2020-01-15	66,200	123,516	8,176,759,200
2020-01-14	67,000	203,912	13,662,104,000
2020-01-13	66,500	364,387	24,231,735,500
2020-01-10	69,000	1,292,254	89,165,526,000
2020-01-09	65,100	191,189	12,446,403,900
2020-01-08	63,100	312,351	19,709,348,100
2020-01-07	65,800	209,726	13,799,970,800
2020-01-06	66,400	261,860	17,387,504,000
2020-01-03	67,000	213,770	14,322,590,000
2020-01-02	66,700	450,033	30,017,201,100
2019-12-30	64,000	186,188	11,916,032,000
2019-12-27	63,000	164,722	10,377,486,000
2019-12-26	62,200	162,680	10,118,696,000
2019-12-24	63,100	343,835	21,695,988,500

2019-12-23	61,100	224,835	13,737,418,500
2019-12-20	60,500	134,781	8,154,250,500
2019-12-19	60,600	135,278	8,197,846,800
2019-12-18	60,500	135,718	8,210,939,000
2019-12-17	60,900	222,787	13,567,728,300
2019-12-16	62,000	165,194	10,242,028,000
2019-12-13	62,300	251,002	15,637,424,600
2019-12-12	62,200	467,190	29,059,218,000
2019-12-11	61,600	245,179	15,103,026,400
2019-12-10	61,400	426,739	26,201,774,600
2019-12-09	61,200	463,148	28,344,657,600
2019-12-06	62,700	318,627	19,977,912,900
2019-12-05	62,500	599,335	37,458,437,500
① A 2-month weighted arithmetic mean closing price			64,002
② A 1-month weighted arithmetic mean closing price			65,474
③ A 1-week weighted arithmetic mean share price			59,729
Arithmetic mean = $(\textcircled{1} + \textcircled{2} + \textcircled{3}) / 3$			63,068

(2) Preferred stocks

(Unit: KRW, stocks)

Date	Closing price	Trading volume	Closing price x Trading volume
2020-02-04	27,800	114,609	3,186,130,200
2020-02-03	26,550	31,995	849,467,250
2020-01-31	26,200	33,666	882,049,200
2020-01-30	27,200	32,952	896,294,400
2020-01-29	28,250	26,641	752,608,250
2020-01-28	28,350	60,402	1,712,396,700
2020-01-23	29,500	94,340	2,783,030,000
2020-01-22	29,500	29,316	864,822,000
2020-01-21	29,550	57,162	1,689,137,100
2020-01-20	30,450	92,368	2,812,605,600
2020-01-17	30,150	41,821	1,260,903,150
2020-01-16	30,700	55,817	1,713,581,900
2020-01-15	30,650	126,370	3,873,240,500
2020-01-14	31,200	146,303	4,564,653,600
2020-01-13	31,400	395,787	12,427,711,800
2020-01-10	35,200	2,036,103	71,670,825,600
2020-01-09	28,000	46,202	1,293,656,000
2020-01-08	27,200	103,109	2,804,564,800
2020-01-07	29,350	81,793	2,400,624,550
2020-01-06	29,850	141,548	4,225,207,800
2020-01-03	30,300	137,130	4,155,039,000
2020-01-02	31,000	425,014	13,175,434,000

2019-12-30	28,800	29,191	840,700,800
2019-12-27	28,650	46,820	1,341,393,000
2019-12-26	28,550	46,764	1,335,112,200
2019-12-24	28,900	126,158	3,645,966,200
2019-12-23	28,200	80,655	2,274,471,000
2019-12-20	28,000	56,819	1,590,932,000
2019-12-19	28,650	55,107	1,578,815,550
2019-12-18	28,900	70,090	2,025,601,000
2019-12-17	29,200	85,888	2,507,929,600
2019-12-16	29,950	120,789	3,617,630,550
2019-12-13	30,400	130,165	3,957,016,000
2019-12-12	30,100	580,463	17,471,936,300
2019-12-11	28,900	265,597	7,675,753,300
2019-12-10	28,750	695,696	20,001,260,000
2019-12-09	27,800	151,961	4,224,515,800
2019-12-06	29,800	168,655	5,025,919,000
2019-12-05	31,000	383,292	11,882,052,000
① A 2-month weighted arithmetic mean closing price			31,196
② A 1-month weighted arithmetic mean closing price			32,724
③ A 1-week weighted arithmetic mean share price			27,377
Arithmetic mean = (①+②+③)/3			30,432

2. Details of claim

1) Details of the claim to purchase

The results of the exercise of the appraisal right by the shareholders who oppose this business transfer are as follows.

- Total number of shares claimed for purchase: 144,715 shares
- Total payment for the share purchase: KRW 4,434,905,808
- Details

Classification	Common stocks	Preferred stocks
Quantity of shares claimed for purchase (shares)	948	143,767
Share purchase price (KRW)	63,068	30,432
Payment of share purchase (KRW)	59,788,464	4,375,117,344

2) Others

- The number of shares for which the appraisal right above was exercised is equivalent to 1.10% of the Company's total issued shares, and by type, is equivalent to 0.01% of common stocks and 9.86% of preferred shares.
- There are no shares for which price adjustment was applied for in the above case.

3. Purchase date and source of funds for the acquisition

- 1) Purchase date: May 4, 2020
- 2) Source of required funds: Self-owned funds

4. Handling policy for the purchased shares

In accordance with Article 165-5 of the Financial Investment Services and Capital Markets Act and Article 176-7 of the Enforcement Decree of the same Act, the relevant shares will be disposed of within 5 years from the date of purchase.

IV. Matters concerning the creditor protection

- Not applicable

V. Status of related lawsuits

- As of the reference date of the business transfer, there are no lawsuits in progress which may affect the effectiveness of the business transfer.

VI. Matters concerning the allocation of new shares, etc.

- There are no new shares to be issued and no subsidies to be made by the Company as a result of this transfer.

VII. [Merger, etc.] Summary of financial information before and after the merger

(Unit: KRW one million)

Item	Before transfer		After transfer	Increase (decrease)
	SK chemicals	Bioenergy business division subject to transfer-		
Assets				
Current assets	812,803	129,111	1,066,192	253,389
Non-current assets	1,273,673	66,787	1,206,886	-66,787
Total Assets	2,086,476	195,898	2,273,078	186,602
Liabilities				
Current liabilities	700,095	97,963	602,132	-97,963
Non-current liabilities	659,951	36,686	623,265	-36,686
Total liabilities	1,360,046	134,649	1,225,397	-134,649
Equity				
Shares owned by the controlling company	723,343		1,044,594	321,251
Capital	66,000		66,000	
Capital surplus	264,315		264,315	
Retained earnings	404,839		726,090	321,251
Other capital items	-11,811		-11,811	
Non-controlling interest	3,086		3,086	
Total equity	726,429		1,047,680	321,251
Total liabilities and stockholders' equity	2,086,475	134,649	2,273,077	186,602

※ The summary financial information above is the amount shown in our consolidated quarterly report as of March 31, 2020. It does not include the purchase of treasury stocks following the exercise of appraisal rights after the transfer of this business.

※ The summary financial information above may differ from the statement of financial position prepared as of the actual business transfer date.

※ The proceeds from the sale of the Bioenergy Business Division are reflected in current assets and retained earnings, respectively.

2) Split-off of the utility supply business division

Based on the resolution of the Board of Directors on September 13, 2021, the Company decided to split off the utility supply business division as of February 1, 2021, the date of split-off, and the split-off was completed as of this date.

[Related disclosure: Report on major issues (decision of split-off), 2021.09.13 (Corrected: 2021.12.01)]

1. Method of split-off	(1) In accordance with the provisions of Articles 530-2 to 530-12 of the Commercial Act, the division of the business segment subject to the spin-off will be carried out by establishing a new company through a physical spin-off method, where the divided company remains in existence and receives 100% of the newly issued shares of the newly established company. After the split-off, the company to be split off shall remain as a listed corporation, and the newly established company shall be an unlisted corporation. - Company to be split off: SK Chemicals Co., Ltd. - Business divisions of the Company to be split off: All business divisions except for those subject to split-off - Company newly established: SK Multi-Utility Co., Ltd. - Newly established company's business division: Utility supply business division such as electricity and steam (2) The date of split-off shall be December 1, 2021 (00:00). However, the date of split-off may be changed by a resolution of the Board of Directors of the company to be split off. (3) The company to be split off in accordance with the provisions of Article 530-3 Paragraphs 1 and 2 of the Commercial Act, and newly established in accordance with Article 530-9 Paragraph 2 of the same Act shall, unless otherwise specified in the split-off plan, bear only the debts transferred to the newly established company due to the split-off (including liabilities; hereinafter the same shall apply in the split-off plan) from among the debts of the company to be split off, and among the debts of the company to be split off, the debts which are not transferred to the newly established company shall not have any joint liabilities for repayment. The company to be split off shall not be liable to jointly repay the debts transferred to the new company, and shall only be liable for repaying the debts that are not transferred to the new company. In connection with this, the company to be split off shall proceed with creditor protection procedures in accordance with the provisions of Articles 530-9 and 527-5 of the Commercial Act. (4) Unless otherwise specified in the split-off plan, any and all active and passive assets belonging to the company to be split off, other rights and duties including the rights and duties under the public law, and the factual relationships with asset value (including licenses and authorizations, labor relations, contract relations, litigations, etc.) shall in principle be reverted the newly established company if they relate to the business division subject to split-off, and if they relate to divisions other than those subject to split-off, shall be reverted to the company to be split off, respectively. However, among the rights and obligations belonging to the business division subject to split-off, those whose transfer is prohibited by law or by their nature due to the split-off shall be deemed to remain with the company to be split off, and if a transfer to the newly established company is necessary, it shall be handled through consultations between the company to be split off and the new company. The same shall apply where (i) approval/authorization/acceptance of reports from government agencies, etc. is required before the transfer due to split-off yet it is not possible to receive such, or (ii) where the contract to which the company to be split off is a party related to both the business subject to split-off and the other business divisions, and where it is impossible to separate the portion related to the business division subject to split-off from the portion related to the other business divisions of the contract.

	(5) Unless otherwise agreed upon between the company to be split off and the newly established company, if due to any act or fact prior to the date of split-off in relation to the business of the company to be split off, debts arising or confirmed after the date of split-off or debts incurred or confirmed before the date of split-off due to circumstances such as a lack of recognition are not reflected in the split-off plan (including contingent debts under the public and private laws and any and all other debts), they shall be reverted to the newly established company if the act or fact imputable to such is related to the business division subject to split-off, and shall be reverted to the company to be split off if such is related to any division other than the business division subject to split-off. If it is difficult to determine to which business division such debt is related to, it shall belong to the new company and the company to be split off, each respectively, at the ratio of the net asset value to be divided by the division, but the company to be split off and the newly established company may make different agreements regarding its handling. (6) If the newly established company is exempted from liabilities as the company to be split off repays the debts that the newly established company succeeded to, or due to the investment of the company to be split off, the company to be split off may exercise the right to indemnify the newly established company. The same shall apply where the newly established company repays the debts reverted to the company to be divided, or the company to be divided is exempted by the investment of the newly established company. (7) Unless otherwise agreed by the divided company and the newly established company, any claims or other rights acquired after the spin-off date due to acts or facts related to the business of the divided company before the spin-off date, or any claims or other rights that were already acquired but not recognized due to various circumstances, including those not reflected in the spin-off plan, shall be handled as specified in Subparagraph (5). (8) The method of determining the assets, liabilities and equity of a newly established company shall, in principle, allocate assets and liabilities belonging to or directly or indirectly related to the business division subject to split-off to the newly established company, and the decision shall be made by considering the operations and investment plan of the new company in the future and the requirements of the related laws and regulations.
2. Purpose of split-off	(1) Enhance business expertise, strengthen management efficiency, and actively respond to the rapidly growing global market based on the split-off of the utility supply business division including electricity and steam (hereinafter "business division subject to split-off") among the businesses operated by the company to be divided. (2) A governance structure system will be established that enables quick and professional decision-making in line with the characteristics of each business segment, allowing for rapid responses to market and regulatory changes, strengthening competitiveness, and focusing the company's capabilities on specialized business areas to pursue the diversification of management risks. (3) Facilitate restructuring and intensive investment in core businesses and realize business advancement through the specialization of each business division.

	(4) Through the changes in the governance structure system as described above, the ultimate goal is to enhance corporate value and shareholder value.-
3. Material impact and effect of the split-off	The split-off in this case is carried out through a simple/physical split-off method as provided under Articles 530-2 through 530-12 of the Commercial Act. Accordingly, there is no change made in the shares owned by the largest shareholder of the company to be divided before and after the split-off in this matter and the ratio of equity interest. Furthermore, since the split-off in this case proceeds in the manner of a simple/physical split-off, the split-off itself has no effect on the consolidated financial statements.-
4. Split-off ratio	The split-off ratio is not calculated since the company to be split off is being split off through a simple/physical split-off method by which 100% of the issued shares of the new company are allocated.-
5. Details of the business and assets to be transferred via split-off	(1) The company to be divided shall have any and all active and passive assets belonging to the newly established company as provided under the split-off plan, and other rights and obligations including the rights and obligations under the public law, as well as the factual relationships of asset value (including licenses and authorizations, labor relations, contractual relations, litigations, etc.) transferred to the newly established company. (2) The list and value of the assets to be transferred due to the split-off shall be in accordance with the statement of financial position as of June 30, 2021 and the list of assets as provided in [Attachment 1] Split-Off Statement of Financial Position and [Attachment 2] List of Assets Subject to Succession, and (i) by the date of split-off, if there is any change in the assets or liabilities of the division to be split off due to the business or financial activities of the division to be split off, or if the value of the liabilities changes, the increase or decrease shall be reflected in the separate statement of financial position and the list of assets subject to succession, and (ii) as for the cash and cash equivalents to be transferred on the date of split-off, after the split-off in this case, if the amount must be increased or decreased, provided that the amount of such increase or decrease by the decision of the chief executive officer of the company split off does not exceed KRW [3,000,000,000] in consideration of the demand for the funds required for the business of the newly established company after the split-off, the amount may be increased or decreased. (3) Where necessary, the final value of the assets subject to transfer pursuant to the preceding paragraph may be finalized after being evaluated by a publicly trusted appraisal firm or reviewed by a certified public accountant. (4) Among the rights and obligations belonging to the business division subject to split-off, those whose transfer is prohibited by law or by their nature due to the split-off shall be deemed to remain with the company to be split off, and if a transfer to the newly established company is necessary, it shall be handled through consultations between the company to be split off and the new company. The same shall apply where (i) approval/authorization/acceptance of reports from government agencies, etc. is required before the transfer due to split-off yet it is not possible to receive such, or (ii) where the contract to which the company to be split off is a party related to both the business subject to split-off and the other business divisions, and where it is impossible to separate the portion related to the business division subject to split-off from the portion related to the other business divisions of the contract. (5) The rights to collateral such as mortgages placed to secure movable property, real estate, and contractual relationships arising from the business division subject to split-off and the rights and obligations resulting from the division before the date of split-off, as well as the rights related to the guarantee of the bond and contractual relationships arising from the transaction and the guarantee-related contractual relationships shall belong to the newly established company, and yet shall be in accordance with the split-off plan. (6) Any ongoing litigation involving the divided company as a party prior to the spin-off date, related to the business segment subject to the spin-off, will be succeeded by the newly established company.

			(7) Upon the establishment of the new company, the company to be split off shall provide any cooperation required including the execution of a related contract to ensure that the newly established company can conduct business in the manner it conducts business for the business division subject to split-off before the split-off.			
6. Surviving company after split-off	Company Name		SK Chemicals Co., Ltd.			
	Financial details after split-off (KRW)	Total Assets	2,034,064,466,737	Total liabilities	800,048,065,082	
		Total equity	1,234,016,401,655	Capital	66,050,330,000	
		June 30, 2021		As of the present		
	Revenue of the continuing business segment for the most recent fiscal year (KRW)		883,823,850,615			
	Main Business		Manufacturing, processing, sale, import and export of synthetic resins and related products, etc.			
	Whether maintained as listed after split-off		Yes			
7. Company established after split-off	Company Name		SK Multi-Utility Co., Ltd.			
	Financial details upon establishment (KRW)	Total Assets	171,457,003,471	Total liabilities	14,254,006,139	
		Total equity	157,202,997,332	Capital	5,000,000,000	
		June 30, 2021		As of the present		
	Revenue of the newly established business segment for the most recent fiscal year (KRW)		37,309,763,841			
	Main Business		Production, transportation, distribution of collective energy and related businesses, etc.			
Whether re-listing has been petitioned for		No				
8. Matters concerning capital reduction	Capital reduction ratio (%)		-			
	Period for submission of old share certificates of objections by creditors	Start Date	-			
		End Date	-			
	Expected period of trading suspension	Start Date	-			
		End Date	-			
	New share allocation requirements		-			
	- Whether proportional to the number of shares of shareholders and reason-		-			
	Record date for new share allotment		-			
	Scheduled delivery date of new share certificates		-			
	Scheduled listing date of new shares		-			
9. Scheduled date of shareholders' meeting		October 25, 2021				
10. Period for filing statement of objections by creditors-	Start Date	October 26, 2021				
	End Date	November 26, 2021				
11. Date of split-off		December 1, 2021				
12. Scheduled date of split-off registration		December 2, 2021				
13. Date of Board resolution (decision date)		September 13, 2021				
- Whether Outside Directors who are not Outside Directors	Attended (people)	4				
	Absent (people)	0				
- Whether auditors attended (members of the Audit Committee who are not Outside Directors)		-				

14. Whether contracts such as put option are executed	No
- Details of agreements	-
15. Whether subject to filing of securities registration statement	No
- Reasons for exemption from filing securities registration statement, if exempted	Simple/physical split-off

16. Other matters to consider for investment judgments

(1) Revision and change of the split-off plan

The split-off plan may be changed in the process of consultations with related institutions or in the process of securing approval under related laws and regulations and the General Shareholders' Meeting.

Furthermore, if the split-off plan is approved by the General Meeting of Shareholders, the list below may be changed without any additional approval from the General Meeting of Shareholders by the date before the date of split-off registration, (i) where the relevant revision or change is reasonably necessary, and the revision or change does not cause any disadvantage to the shareholders of the company to be divided or the newly established company, and (ii) where it is a revision or change within the scope that does not impair its homogeneity by a resolution of the Board of Directors of the company to be divided or the authority of the chief executive officer, and such revision or change shall enter into force and become effective when such is announced or disclosed in accordance with the relevant laws and regulations.

- ① Trade names of the company to be divided and the newly established company
- ② Split-off schedule
- ③ Assets to be transferred due to split-off and their value
- ④ Financial structure before and after split-off
- ⑤ Total number of shares issued by the newly established company at the time of split-off
- ⑥ Matters concerning Directors and Auditors of the newly established company
- ⑦ Articles of incorporation of the newly established company and the company to be split off
- ⑧ Among the real estate to be transferred, specify after the subdivision procedure is confirmed

(2) Shareholders' appraisal right: Not applicable since it is a simple split-off.

(3) Matters requiring takeover and handover between companies

The matters required for the takeover and handover between the company to be split off and the company established through a split-off in relation to the implementation of the split-off plan (including the documents, data, etc. of the target business division and various data and facts) are subject to a separate agreement by and between the company to be split off and the company established through a split-off.

(4) Employee succession and retirement benefits, etc.

The newly established company shall succeed to the employees and related legal relationships (their retirement benefits, etc.) serving for the business subject to split-off as of December 1, 2021 (the date of split-off). However, for any employee who refuses succession or an employee who is also related to another business division other than the business division subject to split off, the newly established company may not succeed to such employee after carrying out consultations with the company to be split off, and any other matters related to employee succession shall be handled via consultations by and between the company to be split off and the newly established company.

(5) Transfer of personal information

As of the date of split-off, any and all personal information related to the business division subject to split-off shall be transferred to the newly established company under the personal information related laws and regulations, including the Personal Information Protection Act, and the company to be divided shall undergo the procedures required within the deadline provided in the related laws and regulations such as the notice on the transfer of personal information following split-off.

[Attachment 1] Split-off statement of financial position (as of June 30, 2021)

(Unit: KRW)

Account	Before split-off	After split-off	
		Surviving company	Newly established company
Assets			
I. Current assets	884,067,488,269	823,600,613,420	60,466,874,849
Cash and cash equivalents	107,130,229,692	50,130,229,692	57,000,000,000
Short-term financial assets	285,214,195,564	285,214,195,564	-
Trade and other receivables	276,420,174,225	273,775,383,730	2,644,790,495
Inventories	164,679,060,308	163,989,441,063	689,619,245

Other current assets	50,623,828,480	50,491,363,371	132,465,109
II. Non-current assets	1,164,250,984,607	1,210,463,853,317	110,990,128,622
Investment assets	254,428,702,112	411,631,699,444	-
Tangible assets	883,040,848,759	772,050,720,137	110,990,128,622
Intangible assets	26,237,735,574	26,237,735,574	-
Other non-current assets	543,698,162	543,698,162	-
Deferred income tax assets	-	-	-
Total Assets	2,048,318,472,876	2,034,064,466,737	171,457,003,471
Liabilities			
I. Current liabilities	486,500,821,990	477,344,725,145	9,156,096,845
Trade and other payables	253,848,484,235	245,506,262,891	8,342,221,344
Short-term borrowings	2,941,037,206	2,941,037,206	-
Current portion of long-term liabilities	79,915,462,256	79,915,462,256	-
Current portion of lease liabilities	1,534,978,312	721,102,811	813,875,501
Current income tax liabilities	122,899,311,880	122,899,311,880	-
Current portion of contract liabilities	10,658,040,120	10,658,040,120	-
Other current liabilities	14,703,507,981	14,703,507,981	-
II. Non-current liabilities	327,801,249,231	322,703,339,937	5,097,909,294
Debenture	310,301,251,026	310,301,251,026	-
Lease liabilities	5,691,357,505	593,448,211	5,097,909,294
Defined benefit liabilities	4,516,752,428	4,516,752,428	-
Deferred income tax liabilities	5,546,152,272	5,546,152,272	-
Other non-current liabilities	1,745,736,000	1,745,736,000	-
Total liabilities	814,302,071,221	800,048,065,082	14,254,006,139
Equity			
I. Capital	66,050,330,000	66,050,330,000	5,000,000,000
II. Capital surplus	189,208,756,911	189,208,756,911	152,202,997,332
III. Other capital items	(9,207,095,874)	(9,207,095,874)	-
IV. Accumulated other comprehensive income	-	-	-
V. Retained earnings	987,964,410,618	987,964,410,618	-
Total equity	1,234,016,401,655	1,234,016,401,655	157,202,997,332
Total liabilities and stockholders' equity	2,048,318,472,876	2,034,064,466,737	171,457,003,471

Note 1) The statement of financial position above is prepared based on the book amount on the Company's statement of financial position as of June 30, 2021, and may differ from the split-off statement of financial position to be prepared on the actual date of split-off.

[Attachment 2] List of Assets Subject to Succession (as of June 30, 2021)

(Unit: KRW)

Name of account	used	Amount
Assets		
I. Current assets		60,466,874,849
Cash and cash equivalents	Business division subject to split-off's cash	57,000,000,000
Trade and Other Receivables	Business division subject to split-off's trade receivables and accounts receivable, etc.	2,644,790,495
Inventories	Business division subject to split-off's inventories	689,619,245
Other current assets	Business division subject to split-off's prepaid expenses	132,465,109
II. Non-current assets		110,990,128,622
Tangible assets	Business division subject to split-off's tangible assets	110,990,128,622
Total Assets		171,457,003,471
Liabilities		

I. Current liabilities		9,156,096,845
Trade and other payables	Business division subject to split-off's trade payables, accounts payable, and accrued expenses	8,342,221,344
Current portion of long-term liabilities	Business division subject to split-off's financial lease liabilities	813,875,501
II. Non-current liabilities		5,097,909,294
Non-current portion of long-term liabilities	Business division subject to split-off's financial lease liabilities	5,097,909,294
Total liabilities		14,254,006,139

(Note 1) The list of assets and liabilities subject to succession above is prepared based on the book amount on the statement of financial position of the company to be divided as of June 30, 2021, and

[Related disclosure: Report on the closing of merger, etc. (split-off), 2021.12.02]

I. Schedule

Classification	Date
Date of Board resolution	September 13, 2021
Date of shareholders' confirmation for the General Meeting of Shareholders for split-off	September 28, 2021
Date of shareholders' meeting for approval of split-off plan	October 25, 2021
Date of split-off	December 1, 2021
Date of general meeting for reporting split-off or the date of general meeting for incorporation (Note 1)	December 1, 2021
Date of split-off registration	December 2, 2021

(Note 1) Among the details above, the General Meeting of Shareholders for reporting split-off was substituted by an announcement of the resolution of the Board of Directors

II. Changes in the equity interest such as the largest shareholder

It is not applicable since this is a case of a simple split-off under Articles 530-2 through 530-12 of the Commercial Act.

III. Exercise of the appraisal right

It is not applicable since this is a case of a simple/physical split-off under Articles 530-2 through 530-12 of the Commercial Act.

IV. Matters concerning the creditor protection

On October 26, 2021, the Company posted the "Advisory on the Creditors' Statement of Objection" on the Company's website (<http://www.skchemicals.com>) and advised each creditor accordingly. The Company set the period for the creditors' submission of objection from October 26, 2021 to November 26, 2021, and there was no objection from the creditors during this period.

V. Status of related lawsuits

As of the date of submission of this report, no lawsuit has been filed in connection with this split-off, which may affect the effectiveness of the split-off.

VI. Matters concerning the allocation of new shares, etc.

This split-off is a simple/physical split-off, and 100% of the total number of stocks issued by the company established through the division are allocated for the company to be split off.

VII. [Merger, etc.] Summary of financial information before and after the merger

(Unit: KRW)

Account	Before split-off	After split-off	
		Surviving company	Newly established company
Assets			
I . Current assets	884,067,488,269	823,600,613,420	60,466,874,849
Cash and cash equivalents	107,130,229,692	50,130,229,692	57,000,000,000
Short-term financial assets	285,214,195,564	285,214,195,564	-
Trade and other receivables	276,420,174,225	273,775,383,730	2,644,790,495
Inventories	164,679,060,308	163,989,441,063	689,619,245
Other current assets	50,623,828,480	50,491,363,371	132,465,109
II . Non-current assets	1,164,250,984,607	1,210,463,853,317	110,990,128,622
Investment assets	254,428,702,112	411,631,699,444	-
Tangible assets	883,040,848,759	772,050,720,137	110,990,128,622
Intangible assets	26,237,735,574	26,237,735,574	-
Other non-current assets	543,698,162	543,698,162	-
Deferred income tax assets	-	-	-
Total Assets	2,048,318,472,876	2,034,064,466,737	171,457,003,471
Liabilities			
I . Current liabilities	486,500,821,990	477,344,725,145	9,156,096,845
Trade and other payables	253,848,484,235	245,506,262,891	8,342,221,344
Short-term borrowings	2,941,037,206	2,941,037,206	-
Current portion of long-term liabilities	79,915,462,256	79,915,462,256	-
Current portion of lease liabilities	1,534,978,312	721,102,811	813,875,501
Current income tax liabilities	122,899,311,880	122,899,311,880	-
Current portion of contract liabilities	10,658,040,120	10,658,040,120	-
Other current liabilities	14,703,507,981	14,703,507,981	-
II . Non-current liabilities	327,801,249,231	322,703,339,937	5,097,909,294
Debenture	310,301,251,026	310,301,251,026	-

Lease liabilities	5,691,357,505	593,448,211	5,097,909,294
Defined benefit liabilities	4,516,752,428	4,516,752,428	-
Deferred income tax liabilities	5,546,152,272	5,546,152,272	-
Other non-current liabilities	1,745,736,000	1,745,736,000	-
Total liabilities	814,302,071,221	800,048,065,082	14,254,006,139
Equity			
I . Capital	66,050,330,000	66,050,330,000	5,000,000,000
II . Capital surplus	189,208,756,911	189,208,756,911	152,202,997,332
III . Other capital items	(9,207,095,874)	(9,207,095,874)	-
IV . Other accumulated comprehensive income	-	-	-
V . Retained earnings	987,964,410,618	987,964,410,618	-
Total equity	1,234,016,401,655	1,234,016,401,655	157,202,997,332
Total liabilities and stockholders' equity	2,048,318,472,876	2,034,064,466,737	171,457,003,471

※ The above balance sheet is based on the book value of the divided company as of June 30, 2021, and may differ from the balance sheet to be prepared on the actual spin-off date.

C. Green management

Before the split-off, SK Chemicals was designated as a management company pursuant to Article 42 Paragraph 6 of the Framework Act on Low Carbon, Green Growth, and was designated as the business entity eligible for allocation of the emission permit pursuant to Article 8 of the Act on the Allocation and Trading of Greenhouse-Gas Emission Permits from 2015 onward. The Company reports the matters on the greenhouse gas emissions and energy consumption that have been verified by the third party to the external verification agency in accordance with Article 24 of the same Act and the government's instruction. The Company's greenhouse gas emissions and energy consumption for the past 3 years are as follows.

(2024)

[SK Chemicals]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
SK Petrochemical	15,793	65,464	81,257	285	179	774	1,238
Ulsan	29,465	107,756	137,220	810	963	839	2,612
Cheongju	1,809	5,769	7,578	35	121	-	156
Eco Lab 1	286	4,912	5,198	5	85	24	113
LS regional office	-	19	19	-	-	-	-
Dongtan Forming Processing Lab	-	211	211	-	4	-	4
Total	47,353	184,130	231,483	1,136	1,352	1,637	4,125

(Note 1) The greenhouse gas emissions for 2024 are estimates and may vary upon confirmation at a later time.

(Note 2) Initiz (currently HDC Polyall) was separated from SK Chemicals on December 31, 2021, and according to the specification, it was separated from SK Chemicals organizational boundaries after the emission amount was confirmed in 2021.

[SK Multi-Utility]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
Ulsan	318,677	29,137	347,813	3,474	609	48	4,130

※The greenhouse gas emissions for 2024 are estimates and may vary upon confirmation at a later time.

(2023)

[SK Chemicals]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
SK Petrochemical	19,213	60,714	79,926	349	180	709	1,237
Ulsan	25,035	103,091	128,125	692	898	818	2,407
Cheongju	1,694	5,795	7,489	33	121	-	154
Eco Lab 1	297	4,780	5,077	5	81	25	111
LS regional office	-	19	18	-	-	-	-
Dongtan Forming Processing Lab	-	207	206	-	4	-	4
Total	46,239	174,606	220,841	1,079	1,285	1,552	3,913

※ Initiz (currently HDC Polyall) was separated from SK Chemicals on December 31, 2021, and according to the specification, it was separated from SK Chemicals organizational boundaries after the emission amount was confirmed in 2021.

[SK Multi-Utility]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
Ulsan	302,459	32,393	334,853	3,302	677	34	4,013

[2022]

[SK Chemicals]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
SK Petrochemical	24,588	70,229	94,817	438	239	873	1,549
Ulsan	34,363	121,570	155,932	878	991	1,101	2,969
Cheongju	1,779	5,859	7,637	35	122	-	157
Eco Lab 1	358	4,617	4,975	6	78	23	107
LS regional office	-	25	24	-	1	-	-
Dongtan Forming Processing Lab	-	219	219	-	5	-	4
Total	61,088	202,518	263,604	1,356	1,436	1,997	4,786

※ Initiz (currently HDC Polyall) was separated from SK Chemicals on December 31, 2021, and according to the specification, it was separated from SK Chemicals organizational boundaries after the emission amount was confirmed in 2021.

[SK Multi-Utility]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
Ulsan	304,712	41,531	346,243	3,355	868	470	4,693

D. Status of escrow

- Not applicable

XII. Detailed Tables

1. Consolidated Subsidiaries

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(Unit: KRW one million)

Trade name	Date of incorporation	Address	Main Business	End of the most recent fiscal year Total Assets	Grounds for controlling relationship	Whether a key subsidiary
SK Bioscience Co., Ltd.	2018.07.01	310 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do	Pharmaceutical manufacturing	2,843,596	Equity interest 66%	O
SK Multi-Utility	2021.12.01	718 Cheoyong-ro, Nam-gu, Ulsan (Hwangseong-dong)	Manufacturing	701,545	Equity interest 100%	O
Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.	2023.03.06	10ht Floor of Finance Building, YIMingRoad of Cheng hai District, Shantou, Guangdong province, P. R. China	Plastic manufacturing business	183,841	Equity interest 100%	O
SK Environmental Materials (Yantai) Co., Ltd.	2020.06.15	C-35, Chemical Industry Park, Economic and Technological Development Zone, Yantai City, Shandong Province	Resin manufacturing	77,008	Equity interest 100%	O
SK Chemicals GmbH	2008.06.20	TOPAS 2. MERGENTHALERALLEE 79-81, 65760 ESCHBORN, GERMANY	Wholesale	69,567	Equity interest 100%	X
SK Chemicals America	2002.07.19	3 Park Plaza Suite 430, Irvine CA 92614	Wholesale	66,259	Equity interest 100%	X
SK Chemicals Daejeong Co., Ltd.	2020.04.01	310 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do	Organic solvent manufacturing	18,718	Equity interest 50%	X
SK bioscience USA, Inc.	2022.12.19	3 Park Plaza Suite 430, Irvine CA 92614	Biotechnology development	7,402	Equity interest 100%	X
SK Environmental Protection Materials (Yantai) Co., Ltd.	2018.11.02	Shanghai Mart 2407-2408, Yanan West Rd. 2299, Shanghai, China	Management consulting	6,379	Equity interest 100%	X
SK Chemicals Malaysia	2020.08.25	Suite 19-03, G Tower, 199 Jalan Tun Razak, 50450 Kuala Lumpur, Malaysia	Management consulting	582	Equity interest 100%	X
SK bioscience Germany GmbH	2024.04.11	Karl-Hermann-Flach-Straße 25, 61440 Oberursel (Taunus)	Holding Company	381,454	Equity interest 100%	O
IDT Biologika GmbH	1993.03.01	Am Pharmapark, 06861 Dessau-Roßlau, Germany	Pharmaceutical manufacturing	704,135	Equity interest 61%	O
IDT Biologika Corporation (Note 3)	2009.03.12	1405 Research Blvd, Rockville, MD 20850	Pharmaceutical manufacturing	2,315	Equity interest 61%	X
Technik-Energie-Wasser Servicegesellschaft mbH	1993.03.01	Am Pharmapark, 06861 Dessau-Roßlau, Germany	Other Services	72,260	Equity interest 60%	X

※ The "Total assets at the end of latest business year" above was prepared as of the end of 2024, and is based on the financial statements adjusted for consistency with the accounting policies of consolidated subsidiaries to those of the controlling company.

※ The ownership ratio presented under 'Grounds for the controlling relationship' above is based on the controlling company's effective equity interest.

※ The criterion for determining whether a subsidiary is a major subsidiary is that the total assets of the subsidiary at the end of the latest business year are 10% or more of the controlling company's total assets or KRW 75 billion or more.

2. Affiliates

Go to the main text

(Reference date: 2024.12.31)

(Unit: company)

Whether listed	Number of companies	Company Name	Corporate registration number
Listed	21	SKC Co., Ltd.	130111-0001585
		SK gas Co., Ltd.	110111-0413247
		SK networks Co., Ltd.	130111-0005199
		SK Discovery Co., Ltd.	130111-0005727
		SK D&D Co., Ltd.	110111-3001685
		SK Bioscience Co., Ltd.	131111-0523736
		SK Biopharmaceuticals Co., Ltd.	110111-4570720
		SK Square Co., Ltd.	110111-8077821
		SK IE Technology Co., Ltd.	110111-7064217
		SK oceanplant	191311-0003485
		SK Consigned Management Real Estate Investment Company Co., Ltd.	110111-7815446
		SK Innovation Co., Ltd.	110111-3710385

		SK eternix	131111-0729441
		SK Co., Ltd.	110111-0769583
		SK Chemicals Co., Ltd.	131111-0501021
		SK Telecom Co., Ltd.	110111-0371346
		SK Hynix Co., Ltd.	134411-0001387
		Incross Co., Ltd.	110111-3734955
		ISC Co., Ltd.	131111-0057876
		Dreamus Company	110111-1637383
		SM Core Co., Ltd.	110111-0128680
Unlisted	812	Logi Soft Co., Ltd.	110114-0244050
		11st Co., Ltd.	110111-6861490
		F&U Credit Information Co., Ltd.	135311-0003300
		SK Networks Service Co., Ltd.	135811-0141788
		SK Nexilis Co., Ltd.	110111-6480232
		SK Resonac Co., Ltd.	175611-0018553
		SK leaveo (Formerly EcoVance Co., Ltd.)	135811-0433028
		SK REITs Management Co., Ltd.	110111-7832127
		SK Magic Service Co., Ltd.	134811-0039752
		SK Magic Co., Ltd.	110111-5125962
		SK Materials Group Co., Ltd.	171411-0032197
		SK Materials JNC Co., Ltd.	134811-0595837
		SK Materials Performance Co., Ltd.	164711-0095338
		SK Multi-Utility Co., Ltd.	230111-0363760
		SK Bio Tech Co., Ltd.	160111-0395453
		SK Broadband Co., Ltd.	110111-1466659
		SK Store Co., Ltd.	110111-6585884
		SK Specialty Co., Ltd.	175611-0025475
		SK speedmate	130111-1198836
		SK Siltron CSS Korea	110111-8298922
		SK Siltron Co., Ltd.	175311-0001348
		SK Advanced Co., Ltd.	230111-0227982
		SK Earthon Co., Ltd.	110111-8042361
		SK Energy Co., Ltd.	110111-4505967
		SK airplus Co., Ltd. (formerly SK Materials Airplus Co., Ltd.)	230111-0134111
		SK Ecoengineering Co., Ltd.	110111-8061337
		SK ecoplant Co., Ltd.	110111-0038805
		SK Enmove Co., Ltd.	110111-4191815
		SK enterm Co., Ltd.	110111-8834255
		SK Enpulse Co., Ltd.	134711-0014631
		SK M&Service Co., Ltd.	110111-1873432
		SK O&S Co., Ltd.	110111-4370708
		SK On Co., Ltd.	110111-8042379
		SK ontechplus Co., Ltd. (formerly SK Mobile Energy Co., Ltd.)	161511-0076070
		SK Incheon Petrochemical Co., Ltd.	120111-0666464

	SK Electlink Co., Ltd.	131111-0687582
	SK Forest Co., Ltd.	134811-0174045
	SK Geo Centric Co., Ltd.	110111-4505975
	SK Communications Co., Ltd.	110111-1322885
	SK Chemicals Daejeong Co., Ltd.	131111-0587675
	SK Keyfoundry Co., Ltd. (formerly Keafoudry Co., Ltd.)	150111-0285375
	SK Telecom CST1 Co., Ltd.	110111-7170189
	SK Telink Co., Ltd.	110111-1533599
	SK Trichem Co., Ltd.	164711-0060753
	SK plasma Co., Ltd.	131111-0401875
	SK Planet Co., Ltd.	110111-4699794
	SK Plug Hyverse Co., Ltd.	110111-8171657
	SK PIC Global Co., Ltd.	230111-0324803
	SK Pinx Co., Ltd.	224111-0003760
	SK Hynix System IC Co., Ltd.	150111-0371124
	SK Hynix System IC Co., Ltd.	150111-0235586
	SK Hystec Co., Ltd.	134411-0037746
	SK Hyeng Co., Ltd.	134411-0017540
	Complex Co., Ltd.	171211-0127207
	Kangwon City Gas Co., Ltd.	140111-0002010
	Gyeongsan Clear Water Co., Ltd.	120111-0701848
	Gokseong Environment Co., Ltd.	200111-0187330
	Good Service Co., Ltd.	110111-4199877
	Green Soonchang Co., Ltd.	160111-0134942
	Green Hwasoon Co., Ltd.	160111-0199459
	Global AI Platform Corporation Korea Co., Ltd.	131111-0710903
	Narae Energy Service Co., Ltd.	110111-4926006
	Nae Truck Co., Ltd.	110111-3222570
	Dalseong Clear Water Co., Ltd.	160111-0317770
	Dangjin Eco Power Co., Ltd.	165011-0069097
	Dangjin Happiness Solar Co., Ltd.	110111-8022925
	Southeast Coast Offshore Wind Power Co., Ltd.	110111-8180335
	DDISF PFV Co., Ltd.	120111-1368895
	D&D Investment Co., Ltd.	110111-6618263
	D&D Property Solutions Co., Ltd.	110111-8150924
	Lotte SK Eneroot Co., Ltd.	110111-8436374
	Renewland Gyeongju Co., Ltd. (formerly YSTech Co., Ltd.)	170111-0397522
	Renewland Sin-Gyeongju Co., Ltd. (formerly Samwon ENT Co., Ltd.)	170111-0804791
	Renewland Cheongju, Co., Ltd.	150111-0355285
	Renew Logistics Inder Co., Ltd.	165011-0093070
	Renewlogis Co., Ltd.	121111-0414789
	Renew Liquid Seonam Co., Ltd. (formerly Seonam Environmental Energy Co., Ltd.)	184611-0017968
	Renew Liquid Honam Co., Ltd. (formerly Honam Environmental Energy Co., Ltd.)	160111-0523369
	Renewus Co., Ltd. (formerly Environmental Facility Management Co., Ltd.)	134111-0486452

	Renewenergy Gyeonggi Co., Ltd. (formerly Gyeonggi Environmental Energy Co., Ltd.)	134211-0058473
	Renewenergy Gyeongbuk Co., Ltd. (formerly Gyeongbuk Environmental Energy Co., Ltd.)	176011-0055291
	Renewenergy Gyeongbuk Co., Ltd. (formerly Gyeongbuk Environmental Energy Co., Ltd.)	134811-0279340
	Renewenergy Green Co., Ltd.	161511-0347158
	Renewenergy Daewon Co., Ltd.	161511-0347140
	Renewenergy Metro Co., Ltd.	284311-0028506
	Renewenergy Saehan Co., Ltd.	161511-0347166
	Renewenergy Jeonnam Co., Ltd.	201211-0018780
	Renewenergychungnam Co., Ltd.	161311-0069053
	Renewenergy Chungbuk Co., Ltd.	150111-0034251
	Renewenergy Chungcheong Co., Ltd. (formerly Chungcheong Environmental Energy Co., Ltd.)	165011-0013078
	RenewOne Co., Ltd.	161511-0134795
	Renewcon Daewon Co., Ltd.	161511-0197397
	Mind Knock Co., Ltd.	110111-6638873
	Media S Co., Ltd.	110111-7739191
	Mintit Co., Ltd.	124411-0057457
	Boryeong LNG Terminal Co., Ltd.	164511-0021527
	Boryeong BlueHy Co., Ltd.	164511-0042010
	Lake Busa Happy Nanum Solar Co., Ltd.	200111-0654256
	Busan Jeongkwan Energy Co., Ltd.	180111-0484898
	BloomSKpurecell Co., Ltd.	176014-0002163
	Samkang S&C Co., Ltd.	191211-0000681
	Service Ace Co., Ltd.	110111-4368688
	Service Top Co., Ltd.	160111-0281090
	Seoul Air Bus Co., Ltd.	110111-5304756
	Seongju Tech Co., Ltd.	284411-0087386
	Studio Wavve Co., Ltd.	110111-7891785
	Ariul Happy Solar Co., Ltd.	110111-7725041
	ID Quantique Co., Ltd.	131114-0009566
	IGE Co., Ltd.	120111-1134494
	lparking Co., Ltd. (formerly Parking Cloud Co., Ltd.)	110111-4221258
	Ultimus Co., Ltd.	135811-0470393
	STAC Co., Ltd.	230111-0379436
	AP Development Co., Ltd.	201111-0068498
	F SK L&S Co., Ltd.	131111-0462520
	Entis Co., Ltd.	130111-0021658
	Yeoju Energy Service Co., Ltd.	110111-6897817
	Yeongnam Energy Service Co., Ltd.	175311-0001570
	Ulsan GPS Co., Ltd.	165011-0035072
	Ulsan Aromatics Co., Ltd.	110111-4499954
	One Store Co., Ltd.	131111-0439131
	U-Base Manufacturing Asia Co., Ltd.	230111-0168673
	ENS City Gas Busan Co., Ltd.	110111-9019012
	ENS City Gas Busan Co., Ltd.	110111-9019145

	Infra Communications Co., Ltd.	110111-6478873
	Jeonnam 2 Offshore Wind Power Co., Ltd.	110111-7985661
	Jeonnam 3 Offshore Wind Power Co., Ltd.	110111-7985934
	Jeonnam City Gas Co., Ltd.	201311-0000503
	Jeonnam Offshore Wind Power Co., Ltd.	110111-7400817
	Jeonbuk Energy Service Co., Ltd.	214911-0004699
	JS1 Co., Ltd.	206211-0086790
	Jeju SKFC Co., Ltd. (formerly Jeju United FC Co., Ltd.)	224111-0015012
	DDIOS108 Consigned Management Real Estate Investment Company Co., Ltd.	110111-8092150
	goodsFLOW Co., Ltd.	134511-0318285
	Korea Oil Pipeline Corporation	110111-0671522
	Lock Media Co., Ltd.	110111-2741216
	Busan City Gas Co., Ltd.	180111-0039495
	Shinan Jeungdo Solar Co., Ltd.	201111-0052938
	Solis Co., Ltd.	205711-0024452
	ISCM Co., Ltd.	134611-0105797
	ITMTC Co., Ltd.	131111-0623817
	Ackerton Technology Service Co., Ltd	131111-0718676
	HSolution Co., Ltd	150111-0365713
	En-core, Co., Ltd.	110111-1484263
	All New One Co., Ltd.	230111-0364213
	YLP Co., Ltd.	110111-5969229
	Ulsan Eneroot 2 Co., Ltd.	230111-0381522
	Ulsan Eneroot 3 Co., Ltd.	230111-0395169
	Wonpol Co., Ltd.	165011-0032888
	Yugwan Co., Ltd.	110111-8856043
	UNA Digital Co., Ltd.	110111-3066861
	UNA Engineering Co., Ltd.	135111-0077367
	JSI Co., Ltd.	124611-0261880
	Chaeum F&B Co., Ltd.	180111-1287720
	Taehwa Eneroot 1, Co., Ltd.	230111-0395151
	Taehwa Eneroot 2, Co., Ltd.	230111-0395101
	Hweechan Co., Ltd.	110111-1225831
	G-Energy Co., Ltd.	110111-7788750
	Jindo Sanwol Solar Power Co., Ltd.	206111-0009926
	Changwon SG Energy Co., Ltd.	194211-0370578
	Chungcheong Energy Service Co., Ltd.	150111-0006200
	Katini Co., Ltd.	110111-7983392
	CAST.ERA LLC.	110115-0014998
	Cowon Energy Service Co., Ltd.	110111-0235617
	Content Wavve Corp.	110111-4869173
	Clean Energy Consigned Management Real Estate Investment Company Co., Ltd.	110111-7815602
	Clean Industrial REITs Co., Ltd.	110111-8665840
	Total Value No. 1 Consigned Management Real Estate Investment Company Co., Ltd.	110111-8384672

		Tmap Mobility Co., Ltd.	110111-7733812
		Timor Holdings (U) (formerly SKF & NHIS Timor Holdings (U))	134414-0002628
		Paju Energy Service Co., Ltd.	110111-4629501
		Proptier Co., Ltd. (formerly Korea Exchange Systems Co., Ltd.)	110111-2493601
		PLACE 4 Co.,Ltd	110111-5724467
		PSN Marketing Co., Ltd.	110111-4072338
		Korea Nexlen LLC.	230114-0003328
		Haesola Energy Co., Ltd.	201111-0050106
		Haetssal Solar Power Co., Ltd.	161411-0049376
		Happy Narae Co., Ltd.	110111-2016940
		Happy Donghaeng Co., Ltd.	175611-0021671
		Happy Didim Co., Ltd.	110111-6984325
		Happy-More Inc.	150111-0226204
		Happy Moum Co., Ltd.	230111-0318187
		Happy Miteum Co., Ltd.	110111-8079215
		Happy Chaewoom Co., Ltd.	176011-0130902
		Happy Kiwoom Co., Ltd.	110111-6984672
		Happy Hanwool Co., Ltd.	110111-7197167
		Home & Service Co., Ltd.	110111-6420460
		S&G Technology	-
		ShangHai YunFeng Encar Used Car Sales Service Ltd.	-
		SK C&C Beijing Co., Ltd.	-
		SK C&C Chengdu Co., Ltd.	-
		SK C&C India Pvt., Ltd.	-
		SK C&C USA, INC.	-
		Abrasax Investment Inc.	-
		AMPAC Fine Chemicals Texas, LLC	-
		AMPAC Fine Chemicals, LLC	-
		Fine Chemicals Holdings Corp.	-
		SK Biotek Ireland Limited	-
		SK Pharmteco Inc.	-
		Crest Acquisition LLC	-
		YPOSKESI, SAS	-
		Dogus SK Finansal ve Ticari Yatirim ve Danismanlik A.S.	-
		EM Holdings (Cayman) L.P.	-
		EM Holdings (US) LLC	-
		Gemini Partners Pte. Ltd.	-
		Hermed Alpha Industrial Co., Ltd.	-
		Hermed Capital	-
		Hermed Capital Health Care (RMB) GP Limited	-
		Hermed Capital Health Care Fund L.P.	-
		Hermed Capital Health Care GP Ltd	-
		Hermed Equity Investment Management (Shanghai) Co., Ltd.	-
		Hermeda Industrial Co. Ltd	-

	Prostar APEIF GP Ltd.	-
	Prostar APEIF Management Ltd.	-
	Prostar Asia Pacific Energy Infrastructure SK Fund L.P.	-
	Prostar Capital (Asia-Pacific) Ltd.	-
	Prostar Capital Ltd.	-
	Prostar Capital Management Ltd.	-
	Shanghai Hermed Equity Investment Fund Enterprise	-
	Solaris GEIF Investment	-
	Solaris Partners Pte. Ltd.	-
	SK Investment Management Co., Limited.	-
	SK Semiconductor Investments Co., Ltd	-
	SL (Beijing) Consulting and Management Co., Ltd	-
	SL Capital Management (Hong Kong) Ltd	-
	SL Capital Management Limited	-
	SL Capital Partners Limited	-
	SLSF I GP Limited	-
	Wuxi Junhai Xinxin Investment Consulting Ltd	-
	Wuxi United Chips Investment Management Limited	-
	Beijing Junhai Tengxin Consulting and Management Co.,Ltd	-
	SK SOUTH EAST ASIA INVESTMENT PTE., LTD.	-
	SK INVESTMENT VINA I Pte., Ltd.	-
	SK INVESTMENT VINA II Pte., Ltd.	-
	SK INVESTMENT VINA III Pte., Ltd.	-
	Imexpharm Corporation	-
	SK INVESTMENT VINA IV Pte., Ltd.	-
	MSN INVESTMENT Pte. Ltd.	-
	SK MALAYSIA INVESTMENT I PTE. LTD.	-
	VIETNAM DIGITALIZATION AND HEALTH FUND	-
	SK INVESTMENT VINA VI PTE. LTD.	-
	Cong Thang Alpha Joint Stock Company	-
	EASTERN VISION INVESTMENT JOINT STOCK COMPANY	-
	Truong Luu Chi Invest Joint Stock Company	-
	An Nam Phu Investment Joint Stock Company	-
	Zion Son Kim Joint Stock Company	-
	SUNRISE KIM INVESTMENT JOINT STOCK COMPANY	-
	Lihn Nam Ventures Joint Stock Company	-
	Lien Khuong International Joint Stock Company	-
	Dong Kinh Capital Joint Stock Company	-
	Lac Son Investment Joint Stock Company	-
	KBA Investment Joint Stock Company	-
	SPX GI Holdings Pte. Ltd.	-
	SPX VINA I Pte. Ltd.	-
	SK GI Management	-
	SOCAR MOBILITY MALAYSIA SDN. BHD.	-

	PT Future Mobility Solutions	-
	Future Mobility Solutions SDN. BHD.	-
	EINSTEIN CAYMAN LIMITED	-
	ZETA CAYMAN LIMITED	-
	Golden Pearl EV Solutions Limited	-
	Shanghai SKY Real Estate Development Co.,Ltd.	-
	SK Auto Service Hong Kong Ltd.	-
	SK China Company, Ltd.	-
	SK China Investment Management Company Limited	-
	SK (China) Enterprise Management Co.,Ltd	-
	Tianjin SK Car Rental Co., Ltd	-
	SK Industrial Development China Co., Ltd.	-
	SK International Agro-Products Logistics Development Co., Ltd.	-
	SK Jinzhou International Agro-Sideline Products Park Co., Ltd.	-
	SK Property Investment Management Company Limited	-
	SKY Enterprise Management Co., Ltd.	-
	SKY Property Mgmt. Ltd.	-
	Skyline Auto Financial Leasing Co, Ltd.	-
	Beijing LIZHIWEIXIN Technology Company Limited	-
	SKY (ZHUHAI HENGQIN) TECHNOLOGY CO., LTD	-
	SK (Liaoning) Logistics Co., Ltd.	-
	Hudson Energy NY II, LLC	-
	Hudson Energy NY III, LLC	-
	Hudson Energy NY, LLC	-
	Plutus Capital NY, Inc.	-
	Grove Energy Capital, LLC	-
	Grove Energy Capital II, LLC	-
	Grove Energy Capital III, LLC	-
	Grove Energy Capital IV, LLC	-
	Digital Center Capital Inc.	-
	Martis Capital, LLC	-
	I CUBE CAPITAL INC	-
	Tellus Investment Partners, Inc.	-
	TERRA INVESTMENT PARTNERS II LLC	-
	Terra Investment Partners LLC	-
	Primero Protein LLC	-
	SK Mobility Investments Company Limited	-
	I Cube Capital Hong Kong 1. LP	-
	Castanea Bioscience Inc.	-
	AUXO CAPITAL INC.	-
	AUXO CAPITAL MANAGERS LLC	-
	SK GLOBAL DEVELOPMENT ADVISORS LLC	-
	TELLUS (HONG KONG) INVESTMENT CO.,LIMITED	-
	Saturn Agriculture Investment Co., Limited	-

	Leiya Dahe (Tianjin) Equity Investment Limited Partnership	-
	Roca Capital Inc. (Formerly SK Japan Inc.)	-
	Energy Solution Group, Inc.	-
	ATOM POWER, INC	-
	Skyline Mobility, Inc.	-
	Tillandsia, Inc.	-
	Chamaedorea, Inc.	-
	Areca, Inc.	-
	8Rivers Capital LLC	-
	OGLE TECHNOLOGY INC.	-
	SK JNC Japan Co., Ltd.	-
	SK Materials Group14 (Shanghai) Co., Ltd.	-
	Dongguan Iriver Electronics Co., Ltd.	-
	Iriver China Co., Ltd.	-
	Iriver Enterprise Ltd.	-
	LIFE DESIGN COMPANY INC.	-
	SK E&S Hong Kong Co., Ltd.	-
	SMC US, INC	-
	SMCORE INDIA PRIVATE LIMITED	-
	MINTIT VINA	-
	SK Gas International Pte. Ltd.	-
	SK Gas Petrochemical Pte. Ltd.	-
	SK Gas Trading LLC	-
	SK Gas USA Inc.	-
	Hico Capital, LLC	-
	Networks Tejarat Pars	-
	POSK (Pinghu) Steel Processing Center Co.,Ltd.	-
	Shenyang SK Bus Terminal Co.,Ltd.	-
	SK BRASIL LTDA	-
	SK Networks (Xiamen) Steel Processing Center	-
	SK Networks HongKong Ltd.	-
	SK Networks Japan Co., Ltd.	-
	SK Networks Resources Australia (Wyong) Pty Ltd.	-
	SK Networks Resources Pty Ltd.	-
	SK Networks (Dandong) Energy Co.,Ltd.	-
	SK Networks (Shanghai) Co.,Ltd.	-
	SKN (China) Holdings Co.,Ltd.	-
	HICO GP I, LLC	-
	HICO MANAGEMENT LLC	-
	HICO VENTURES I, L.P.	-
	Nexilis Management Malaysia SDN. BHD	-
	SK Nexilis Malaysia SDN. BHD	-
	SK Nexilis Poland sp. z o.o	-
	NEXILIS MANAGEMENT EUROPE B.V.	-

	Iberian Lube Base Oils Company, S.A.	-
	PT. Patra SK	-
	SK Enmove (Tianjin) Co., Ltd.	-
	SK Enmove India Pvt. Ltd.	-
	SK Enmove Americas, Inc.	-
	SK Enmove Europe B.V.	-
	SK Enmove Japan Co., Ltd.	-
	SK Enmove Russia Limited Liability Company	-
	SK Magic Retails Malaysia Sdn. Bhd	-
	SK MAGIC VIETNAM CO.,LTD	-
	SK specialty Japan Co., Ltd.	-
	SK specialty (Jiangsu) Co., Ltd.	-
	SK specialty (Shanghai) Co., Ltd.	-
	SK specialty Taiwan Co., Ltd.	-
	SK specialty (Xi'An) Co., Ltd.	-
	Mobile Energy Battery America, LLC	-
	Yancheng Yandu District M Energy Consulting Limited Company	-
	Ignis Therapeutics	-
	SK Life Science, Inc	-
	SK Bio Pharmaceutical Technology (Shanghai) LLC.	-
	NextGen Orchestration LLC.	-
	NextGen Broadcast services Co.LLC.	-
	SK Square Americas, Inc.	-
	ID Quantique Ltd.	-
	ID Quantique Inc.	-
	ID Quantique S.A.	-
	Techmaker GmbH	-
	wavve Americas, Inc.	-
	SK Siltron America, Inc.	-
	SK Siltron CSS, LLC	-
	SK Siltron Japan, Inc.	-
	SK Siltron Shanghai Co., Ltd.	-
	SK Siltron USA, Inc.	-
	Absolics Inc.	-
	NEX INVESTMENT LIMITED	-
	NEX UK HOLDINGS LIMITED	-
	SKC International Shanghai Trading Co., Ltd.	-
	SKC PU Specialty Co., Ltd.	-
	ENPULSE America	-
	TechDream Co. Limited	-
	SK hi-tech battery materials (Jiangsu) Co., Ltd.	-
	SK hi-tech battery materials Poland sp. z o.o.	-
	Asia Bitumen Trading Pte, Ltd.	-
	GREEN & CO. ASIA LIMITED	-

	Shandong SK Hightech Oil Co., Ltd.	-
	SK Energy Hong Kong Co., Ltd.	-
	SK Energy Road Investment Co., Ltd.	-
	SK Energy Road Investment (HK) Co., Ltd.	-
	SK Shanghai Asphalt Co., Ltd.	-
	Green Technology Management Pty Ltd	-
	BAKAD Investment and Operation LLP	-
	Mesa Verde RE Ventures, LLC	-
	SK TES PTE. LTD.	-
	Shanghai Taixiang Network Technology Co., Ltd	-
	BT RE Investments, LLC	-
	SK International Investment Singapore Pte. Ltd.	-
	Avrasya Tuneli Isletme Insaat Ve Yatirim A.S.	-
	Thai Woo Ree Engineering Co., Ltd	-
	SK E&C Consultores Ecuador S.A.	-
	Goldberg Enterprises Ltd	-
	TES-AMM CORPORATION (CHINA) LTD	-
	TES B PTE. LTD.	-
	TES ESS PTE. LTD.	-
	TES Sustainable Battery Solutions B.V.	-
	TES Sustainable Battery Solutions GmbH	-
	TES CHINA HOLDINGS PTE. LTD.	-
	TES-AMM EUROPE HOLDINGS LTD	-
	TES-AMM NEW ZEALAND LIMITED	-
	SHANGHAI TES-AMM WASTE PRODUCTS RECYCLE CO., LTD	-
	TES-AMM (BEIJING) CO., LTD	-
	TES-AMM (Guangzhou) Co., Ltd	-
	TES-AMM (SUZHOU) E-WASTE SOLUTIONS CO. LTD	-
	CASH FOR TECH LTD	-
	CUSTOM CONTROLLERS UK LIMITED	-
	Envirofone Limited	-
	Integrations Et Services	-
	REDEEM HOLDINGS LIMITED	-
	Redeem UK Limited	-
	Stock Must Go Limited	-
	Technology Supplies International Ltd.	-
	TES CONSUMER SOLUTIONS LTD	-
	TES Total Environmental Solution AB	-
	TES-AMM (Europe) Ltd	-
	TES-AMM Central Europe GmbH	-
	TES-AMM ESPANA ASSET RECOVERY AND RECYCLING, S.L.	-
	TES-AMM ITALIA SRL	-
	TES-AMM SAS	-
	TES-AMM UK Ltd	-

	VSL Support Limited	-
	Sustainable Product Stewards Pty Ltd	-
	TES SUSTAINABLE BATTERY SOLUTIONS France	-
	Advanced Datacom (Australia) Pty Ltd	-
	GENPLUS PTE. LTD	-
	PT. TES-AMM INDONESIA	-
	TES ENERGY SOLUTIONS PTE. LTD.	-
	TES SUSTAINABILITY PRODUCTS PTE. LTD.	-
	TES USA, Inc.	-
	TES-AMM (CAMBODIA) CO., LTD	-
	TES-AMM (H.K.) LIMITED	-
	TES-AMM (MALAYSIA) SDN. BHD.	-
	TES-AMM (SINGAPORE) PTE. LTD.	-
	TES-AMM (TAIWAN) CO., LTD	-
	TES-AMM AUSTRALIA PTY LTD	-
	TES-AMM JAPAN K.K.	-
	Total Environmental Solutions Co., Ltd.	-
	Hi Vico Construction Company Limited	-
	BAKAD International B.V	-
	Eco Frontier (Singapore) Pte. Ltd.	-
	KS Investment B.V.	-
	SBC GENERAL TRADING & CONTRACTING CO. W.L.L.	-
	Silvertown Investco Ltd.	-
	SK Ecoplant Americas Corporation	-
	SK E&C India Private Ltd.	-
	SK E&C Jurong Investment Pte. Ltd.	-
	SK E&C Saudi Company Limited	-
	SK Engineering&Construction (Nanjing)Co.,Ltd.	-
	SK Holdco Pte. Ltd	-
	SKEC Anadolu LLC	-
	SKEC (Thai) Limited	-
	Sunlake Co., Ltd.	-
	TES C PTE. LTD.	-
	TES Sustainable Battery Solutions (Australia) Pty Ltd	-
	TES Sustainable Battery Solutions Limited Liability Company	-
	ECOPLANT HOLDING MALAYSIA SDN. BHD.	-
	Econovation, LLC	-
	BT FC LLC	-
	Changzhou SKY New Energy Co., Ltd.	-
	JIANGSU SKY NEW ENERGY CO., LTD.	-
	Shanghai TES-AMM Xin New Materials Co., Ltd	-
	TES Netherlands B.V.	-
	ecoengineering Canada Co., Ltd.	-
	SK on Technology Center (Jiangsu) Co., Ltd.	-

	SK Battery America, Inc.	-
	SK Battery Manufacturing Kft.	-
	SK On (Shanghai) Co., Ltd.	-
	SK On Hungary Kft.	-
	SK On Jiangsu Co., Ltd.	-
	SK On Yancheng Co., Ltd.	-
	Blueoval SK LLC	-
	SK Innovation Insurance (Bermuda), Ltd.	-
	SK Americas, Inc.	-
	SK Innovation America Inc.	-
	SK innovation outpost Corporation	-
	NEW&COMPANY ONE PTE. LTD.	-
	BU12 Australia Pty. Ltd.	-
	BU13 Australia Pty. Ltd.	-
	CAES, LLC	-
	China Gas-SK E&S LNG Trading Ltd.	-
	DewBlaine Energy, LLC	-
	Electrodes Holdings, LLC	-
	Energy Solution Holdings, Inc.	-
	EverCharge Services, LLC	-
	EverCharge, Inc.	-
	Fajar Energy International Pte. Ltd.	-
	Grid Solution II LLC	-
	Grid Solution LLC	-
	KCE Brushy Creek Holdings, LLC	-
	KCE CT 1, LLC	-
	KCE CT 10, LLC	-
	KCE CT 2, LLC	-
	KCE CT 5, LLC	-
	KCE CT 7, LLC	-
	KCE CT 8, LLC	-
	KCE CT 9, LLC	-
	KCE Global Holdings, LLC	-
	KCE IL 1, LLC	-
	KCE IL 2, LLC	-
	KCE IN 1, LLC	-
	KCE IN 2, LLC	-
	KCE IN 3, LLC	-
	KCE Land Holdings, LLC	-
	KCE Market Operations, LLC	-
	KCE ME 1, LLC	-
	KCE ME 2, LLC	-
	KCE MI 1, LLC	-
	KCE MI 2, LLC	-

	KCE MI 3, LLC	-
	KCE NY 1, LLC	-
	KCE NY 10, LLC	-
	KCE NY 14, LLC	-
	KCE NY 18, LLC	-
	KCE NY 19, LLC	-
	KCE NY 2, LLC	-
	KCE NY 21, LLC	-
	KCE NY 22, LLC	-
	KCE NY 26, LLC	-
	KCE NY 27, LLC	-
	KCE NY 28, LLC	-
	KCE NY 29, LLC	-
	KCE NY 3, LLC	-
	KCE NY 32, LLC	-
	KCE NY 5, LLC	-
	KCE NY 6, LLC	-
	KCE NY 8, LLC	-
	KCE OK 1, LLC	-
	KCE OK 2, LLC	-
	KCE OK 3, LLC	-
	KCE OK 4, LLC	-
	KCE PF Holdings 2021, LLC	-
	KCE PF Holdings 2022, LLC	-
	KCE Texas Holdings 2020, LLC	-
	KCE TX 10, LLC	-
	KCE TX 11, LLC	-
	KCE TX 12, LLC	-
	KCE TX 13, LLC	-
	KCE TX 14, LLC	-
	KCE TX 15, LLC	-
	KCE TX 16, LLC	-
	KCE TX 19, LLC	-
	KCE TX 2, LLC	-
	KCE TX 21, LLC	-
	KCE TX 24, LLC	-
	KCE TX 25, LLC	-
	KCE TX 26, LLC	-
	KCE TX 28, LLC	-
	KCE TX 7, LLC	-
	KCE TX 8, LLC	-
	Key Capture Energy, LLC	-
	LNG Americas, Inc.	-
	LAI CCS, LLC	-

		Mobility Solution I Inc.	-
		Mobility Solution II Inc.	-
		PassKey, Inc.	-
		PNES Investments, LLC	-
		PRISM DARWIN PIPELINE PTY LTD	-
		PRISM DLNG PTE. LTD.	-
		Prism Energy International China Limited	-
		Prism Energy International Hong Kong Limited	-
		Prism Energy International Pte., Ltd.	-
		Prism Energy International Zhoushan Limited	-
		PT PRISM Nusantara International	-
		PT Regas Energitama Infrastruktur	-
		RNES Holdings, LLC	-
		Roughneck Storage LLC	-
		PRISM Energy International Americas, Inc.	-
		PRISM Energy International Australia Pty Ltd.	-
		SK E&S Dominicana S.R.L.	-
		NEW RENEWABLE ENERGY NO.1 JSC	-
		KCE MI 4, LLC	-
		KCE IN 5, LLC	-
		KCE IA 1, LLC	-
		KCE IL 3, LLC	-
		KCE MA 4, LLC	-
		KCE ID 1, LLC	-
		KCE ID 2, LLC	-
		KCE ID 3, LLC	-
		KCE NY 30, LLC	-
		KCE NY 31, LLC	-
		KCE NY 34, LLC	-
		KCE NE 1, LLC	-
		KCE NE 2, LLC	-
		KCE CA 1, LLC	-
		KCE CA 2, LLC	-
		KCE CA 3, LLC	-
		KCE NV 1, LLC	-
		KCE NV 2, LLC	-
		KCE NY 35, LLC	-
		KCE TX 30, LLC	-
		KCE NY 36, LLC	-
		KCE TX 31, LLC	-
		KCE CT 11, LLC	-
		KCE CA 4, LLC	-
		KCE CA 5, LLC	-
		KCE CA 6, LLC	-

	KCE CA 7, LLC	-
	KCE NV 3, LLC	-
	KCE IL 4, LLC	-
	Green & Connect Capital, Inc.	-
	Ningbo SK Performance Rubber Co., Ltd.	-
	SABIC SK Nexlene Company Pte.Ltd.	-
	Sino-Korea Green New Material (JiangSu) Ltd.	-
	SK Functional Polymer, S.A.S	-
	SK GC Americas, Inc.	-
	SK Geo Centric (Beijing) Holding Co., Ltd.	-
	SK Geo Centric Brazil LTDA	-
	SK Geo Centric China Ltd.	-
	SK Geo Centric International Trading (Shanghai) Co., Ltd.	-
	SK Geo Centric Investment Hong Kong Ltd.	-
	SK Geo Centric Japan Co., Ltd.	-
	SK Geo Centric Singapore Pte. Ltd.	-
	SK Geo Centric International Trading (Guangzhou) Co., Ltd.	-
	SK Primacor Americas LLC	-
	SK Primacor Europe, S.L.U.	-
	SK Saran Americas LLC	-
	SK Chemicals (Shanghai) Co., Ltd	-
	SK Chemicals (Yantai) Co., Ltd.	-
	SK Chemicals America	-
	SK Chemicals GmbH	-
	SK Chemicals Malaysia	-
	Shuye-SK Chemicals (Shantou) Co., Ltd.	-
	AI ALLIANCE, LLC	-
	Atlas Investment Ltd.	-
	Axess II Holdings	-
	Deutsche Telekom Capital Partners Venture Fund II Parallel GmbH & Co. KG	-
	SK TELECOM (CHINA)HOLDING CO.,Ltd.	-
	SKTA Innopartners, LLC	-
	ULand Company Limited	-
	YTK Investment Ltd.	-
	SK Telecom Americas, Inc.	-
	SK Telecom China Fund 1 L.P.	-
	SK Telecom Innovation Fund, L.P.	-
	SK Telecom Venture Capital, LLC	-
	SK Latin America Investment S.A.	-
	SK MENA Investment B.V.	-
	SK Technology Innovation Company	-
	Global Opportunities Breakaway Fund	-
	SAPEON Inc.	-

	FREEDOM CIRCLE CAPITAL, INC.	-
	Montague ESG CAPITAL, LLC.	-
	T1 esports US, Inc.	-
	SK Planet Global Holdings Pte. Ltd.	-
	Gauss Labs Inc.	-
	HITECH Semiconductor (Wuxi) Co.,Ltd. (HITECH)	-
	SK APTECH Ltd.	-
	SK Hynix (Wuxi) Education Service Development Co., Ltd.	-
	SK hynix (Wuxi) Education Technology Co., Ltd.	-
	SK hynix (Wuxi) Industry Development Ltd.	-
	SK hynix (Wuxi) Investment Ltd.	-
	SK hynix (Wuxi) Semiconductor Sales Ltd.	-
	SK hynix America Inc.	-
	SK hynix Asia Pte.Ltd.	-
	SK hynix cleaning (Wuxi) Ltd.	-
	SK hynix Deutschland GmbH	-
	SK hynix Happiness (Wuxi) Hospital Management Ltd.	-
	SK hynix Japan Inc.	-
	SK hynix memory solutions America, Inc.	-
	SK hynix memory solutions Taiwan, Inc.	-
	SK hynix NAND Product Solutions (Beijing) Co., Ltd.	-
	SK Hynix NAND Product Solutions (Shanghai) Co., Ltd.	-
	SK hynix NAND Product Solutions Asia Pacific LLC	-
	SK hynix NAND Product Solutions Canada Ltd.	-
	SK hynix NAND Product Solutions Corp.	-
	SK hynix NAND Product Solutions International LLC	-
	SK hynix NAND Product Solutions Israel Ltd.	-
	SK hynix NAND Product Solutions Japan G.K.	-
	SK hynix NAND Product Solutions Malaysia Sdn. Bhd.	-
	SK hynix NAND Product Solutions Mexico, S. DE R.L. DE C.V.	-
	SK hynix NAND Product Solutions Poland sp. Z o.o.	-
	SK hynix NAND Product Solutions Singapore Pte. Ltd.	-
	SK hynix NAND Product Solutions Taiwan Co., Ltd.	-
	SK hynix NAND Product Solutions UK Limited	-
	SK hynix Semiconductor (China) Ltd.	-
	SK hynix Semiconductor (Chongqing) Ltd.	-
	SK hynix Semiconductor (Dalian) Co., Ltd.	-
	SK hynix Semiconductor Hong Kong Ltd.	-
	SK hynix Semiconductor India Private Ltd.	-
	SK hynix Semiconductor Taiwan Inc.	-
	SK hynix U.K. Ltd.	-
	SK hynix Ventures Hong Kong Limited	-
	Hystars Semiconductor (Wuxi) Co., Ltd	-
	SK hynix system ic (Wuxi) Co., Ltd	-

		SkyHigh Memory Limited Japan	-
		SkyHigh Memory China Limited	-
		SkyHigh Memory Limited	-
		FSK L&S (Jiangsu) Co., Ltd.	-
		FSK L&S (Shanghai) Co., Ltd.	-
		FSK L&S Hungary Kft.	-
		FSK L&S VIETNAM COMPANY LIMITED	-
		FSK L&S USA, Inc.	-
		PHILKO UBINS LTD. CORP	-
		CHONGQING HAPPYNARAE Co., Ltd.	-
		HAPPYNARAE AMERICA LLC.	-
		HAPPYNARAE HUNGARY KFT.	-
		SUZHOU HAPPYNARAE Co., Ltd.	-
		SK bioscience USA, Inc.	-
		SK Keyfoundry America Inc.	-
		SK keyfoundry Shanghai Co., Ltd.	-
		GigaX Europe kft.	-
		TGC Square PTE. LTD.	-
		KCE NY 37, LLC	-
		KCE MN 1, LLC	-
		KCE NY 38, LLC	-
		KCE MI 5, LLC	-
		UNAJapan Inc.	-
		8Rivers Services, LLC	-
		Broadwing Company C, LLC	-
		Coyote Clean Power, LLC	-
		Crossbill Clean Energy Ltd.	-
		Meadowlark Company C, LLC	-
		Meadowlark Energy, LLC	-
		Meadowlark Energy HoldCo, LLC	-
		Meadowlark Holdings, LLC	-
		NPEH, LLC	-
		ParkIntuit, LLC	-
		Whitetail Clean Energy Ltd.	-
		Zero Degrees International, Inc.	-
		Zero Degrees Rosella Pty. Ltd.	-
		Zero Degrees Whitetail 1, Ltd.	-
		Zero Degrees Whitetail Dev. Ltd.	-
		Zero Degrees, LLC	-
		SOLWIND ENERGY JOINT STOCK COMPANY	-
		8Rivers Europe Ltd.	-
		Broadwing Holdings, LLC	-
		Coyote Company C, LLC	-
		Coyote Power Holdings, LLC	-

	Zero Degrees Crossbill Dev. Ltd.	-
	SOLTNZ N PTE.LTD.	-
	SK earthon Australia Pty Ltd	-
	ECOVANCE VIETNAM COMPANY LIMITED	-
	SK geo centric High Performance Product (Zhejiang) Co., Ltd	-
	SK Materials Japan, Inc.	-
	HSAGP ENERGY LLC	-
	Route on Delaware, Inc.	-
	ISC VINA MANUFACTURING COMPANY LIMITED	-
	ISC Japan R&D Center INC	-
	SMATECH INC	-
	ISC International, INC	-
	Route on Quebec Ltd.	-
	Voltcycle On Kft	-
	TES SBS (US) Holdings LLC	-
	Cormorant Clean Energy, LLC	-
	Center for Breakthrough Medicines Holdings, LLC	-
	Hua Lei Holdings Pte. Ltd.	-
	SK Jinhzhou real estate development Co.,Ltd.	-
	Ark1, LLC	-
	ArkN, LLC	-
	KCE IL 5, LLC	-
	KCE IL 6, LLC	-
	KCE NY 40, LLC	-
	KCE MN 3, LLC	-
	KCE AR 1, LLC	-
	KCE MI 7, LLC	-
	KCE OK 5, LLC	-
	KCE OK 6, LLC	-
	SK Life Science Labs, Inc.	-
	11STREET CHINA CO.,LTD	-
	TES Sustainable Battery Solutions Nordics AB	-
	Global AI Platform Corporation	-
	Gridflex, Inc.	-
	SA Grid Solutions, LLC	-
	GridFlex Storage LLC	-
	Great Kiskadee Storage Pledgor Manager, LLC	-
	Great Kiskadee Storage Intermediate Holdco 2, LLC	-
	Great Kiskadee Storage Intermediate Holdco 1, LLC	-
	Great Kiskadee Storage, LLC	-
	PT. SKPLASMA CORE INDONESIA	-
	MiraiTech Inc.	-
	KCE MI 6, LLC	-
	SK Telecom Japan Inc.	-

		BOW-HICO SILICON VALLEY FUND, LP	-
		Nutshell Quantum Safe GmbH	-
		PLANETA PTE. LTD.	-
		SG(Solar Green) Vina Ltd	-
		KCE TX 33, LLC.	-
		SK bioscience Germany GmbH	-
		PT. SKPLASMA INVESTMENT INDONESIA	-
		Phnyx Lab LLC	-
		SK Energy International Pte, Ltd.	-
		SK Energy Europe, Ltd.	-
		SK Energy Americas Inc.	-
		SK Terminal B.V.	-
		GOSEONG OCEANPLANT VINA	-
		GOSEONG OCEANPLANT VINA	-
		ESSENCORE Limited	-
		Essencore Microelectronics (ShenZhen) Limited	-
		ESSENCORE Pte. Ltd.	-
		SK S.E. Asia Pte. Ltd.	-
		SK TES IRELAND LIMITED	-
		ASTRA AI Infra LLC	-
		IDT Biologika GmbH	-
		Technik-Energie-Wasser Servicegesellschaft mbH	-
		KCE MA 5, LLC	-
		KCE NM 1, LLC	-
		KCE NY 41, LLC	-
		KCE NY 42, LLC	-
		KCE PF Holdings 2024, LLC	-
		SK hynix Semiconductor West Lafayette LLC	-
		SK hynix memory solutions Poland sp. z o.o.	-
		Smart Window Inc., Limited	-

(Note 1) As of January 2, 2025, Globe Wide Co., Ltd. is included in the group

(Note 2) As of January 7, 2025, Studio Wave Co., Ltd. and All New One Co., Ltd. are excluded from the group.

(Note 3) As of January 21, 2025, ISCM Co., Ltd. is excluded from the group

(Note 4) Overseas subsidiaries are classified as unlisted companies.

(*) Trade name change: SK Co., Ltd. (formerly SK C&C Co., Ltd.), Entis Co., Ltd. (formerly SK Cytec Co., Ltd.), Paju Energy Services Co., Ltd. (formerly PMP Co., Ltd.), SK M&Service Co., Ltd. (formerly M&Service Co., Ltd.), SK Magic Service Co., Ltd. (formerly Magic Service Co., Ltd.), SK Discovery Co., Ltd. (formerly SK Chemicals Co., Ltd.), SK Rent-A-Car Service Co., Ltd. (formerly CarLife Service Co., Ltd.), Dreamus Company (formerly I River Co., Ltd.), SK O&S Co., Ltd. (formerly Network O&S Co., Ltd.), Ulsan GPS Co., Ltd. (formerly Dangjin Eco-Power Co., Ltd.), SK Rent-A-Car (formerly AJ Rent-a-Car Co., Ltd.), Dangjin Eco-Power Co., Ltd. (formerly Dangjin Eco Solar Power Development Co., Ltd.), Narae Energy Services Co., Ltd. (formerly Wirye Energy Service Co., Ltd.), SK Nexilis Co., Ltd. (formerly KCF Technologies Co., Ltd.), D&D Property Management Co., Ltd. (formerly B&M Development Co., Ltd.), SK Materials Performance Co., Ltd. (formerly SK Performance Materials Co., Ltd.), SK Materials Air Plus (formerly SK Air Gas Co., Ltd.), SK Ecoplant Co., Ltd. (formerly SK E&C Co., Ltd.), SK Geo Centric Co., Ltd. (formerly SK Global Chemicals Co., Ltd.), SK Shieldus Co., Ltd. (formerly ADT Caps Co., Ltd.), SK Ecoengineering Co., Ltd. (formerly BLH Engineering Co., Ltd.), SK Materials Holdings Co., Ltd. BLH Engineering Co., Ltd. (formerly BLH Engineering Co., Ltd.), SK Plug Hybus Co., Ltd. (formerly Haillow Hydrogen Co., Ltd.), SK PU Core Co., Ltd. (formerly Mitsui Chemicals and SKC Polyurethane Co., Ltd.), SK Specialty Co., Ltd. (formerly SK Materials Co., Ltd.), D&D Property Solutions Co., Ltd. (formerly D&D Living Solutions Co., Ltd.), SK Enmove Co., Ltd. (formerly SK Lubricants Co., Ltd.), SK ResoNac Co., Ltd. (formerly SK Showa Denko Co., Ltd.), SK Enpulse Co., Ltd. (formerly SKC Solmix Co., Ltd.)

SK Oceanplant Co., Ltd. (formerly Samkang M&T Co., Ltd.), SK Electlink Co., Ltd. (formerly SS Charger Co., Ltd.), UNADigital Co., Ltd. (formerly A&TES Co., Ltd.), UNE Engineering Co., Ltd. (formerly Yubins Co., Ltd.), Renewon Co., Ltd. (formerly Daewon Green Energy Co., Ltd.), Renewcon Daewon Co., Ltd. (formerly Daewon Hi-Tech Co., Ltd.)

Renew Logistics Co., Ltd. (formerly eMediwon Logistics Co., Ltd.), Renew Energy Chungbuk Co., Ltd. (formerly CleanCo Co., Ltd.), SK Libio Co., Ltd. (formerly EcoVance Co., Ltd.), SK On Tech Plus Co., Ltd. (formerly SK Mobile Energy Co., Ltd.), SK Ki Foundry Co., Ltd. (formerly Ki Foundry Co., Ltd.), Renew Land Gyeongju Co., Ltd. (formerly YSTech Co., Ltd.), Renew Land Sin-Gyeongju Co., Ltd. (formerly Samwon ENT Co., Ltd.), Renew Logistics Co., Ltd. (formerly eMediwon Logistics Co., Ltd.), Renew Liquid Seonam Co., Ltd. (formerly Seonam Environmental Energy Co., Ltd.), Renew Liquid Honam Co., Ltd. (formerly Honam Environmental Energy Co., Ltd.), Renew Us Co., Ltd. (formerly Environmental Facility Management Co., Ltd.), Renew Energy Gyeonggi Co., Ltd. (formerly Gyeonggi Environmental Energy Co., Ltd.), Renew Energy Gyeongbuk Co., Ltd. (formerly Gyeongbuk Environmental Energy Co., Ltd.), Renew Energy Gyeongin Co., Ltd. (formerly Gyeongin Environmental Energy Co., Ltd.), Renew Energy Chungbuk Co., Ltd. (formerly CleanCo Co., Ltd.), Renew Energy Chungcheong Co., Ltd. (formerly Chungcheong Environmental Energy Co., Ltd.), Renew On Co., Ltd. (formerly Daewon Green Energy Co., Ltd.), Renewcon Daewon Co., Ltd. (formerly Daewon Hi-Tech Co., Ltd.), Car Life Service Co., Ltd. (formerly SK Rent-a-Car Service Co., Ltd.), Timor Holdings (U) (formerly SKF & NHIS Timor Holdings (U)), PropTier Co., Ltd. (formerly Korea Exchange Systems Co., Ltd.), iParking Co., Ltd. (formerly Parking Cloud Co., Ltd.), Jeju SKFC Co., Ltd. (formerly Jeju United FC Co., Ltd.)

3. Investments in Other Corporations

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(Reference date: 2024.12.31)
(%)

(Unit: KRW one million, stocks,

Name of corporation	Listed	Date of initial acquisition	Investments Purpose	Amount of initial acquisition	Balance at beginning of period			Increase (decrease)			Balance at end of period			Most recent business year Financial status	
					Quantity	Equity interest	Books -	Acquired (disposed)		Assessed Gains and losses	Quantity	Equity interest	Books-	Total assets	Current period Net profit and loss
								Quantity	Amount						
SK Bioscience Co., Ltd.	Listed	2018.07.01	Management participation	193,664	52,059,724	67.76	168,035	-	-	-	52,059,724	66.45	168,035	2,843,596	-50,117
SK Chemicals Daejeong Co., Ltd.	Unlisted	2020.04.17	Management participation	3	877,303	50.00	6,141	-	-	-	877,303	50.00	6,141	18,718	975
SK Multi-Utility	Unlisted	2021.12.01	Management participation	160,012	1,000,000	100.00	160,012	-	-	-	1,000,000	100.00	160,012	701,545	-2,522
SK chemicals (Suzhou) Co., Ltd.	Unlisted	2005.12.13	Management participation	1,241	-	100.00	11,420	-	-11,420	-	-	-	-	16,832	-185
SK Environmental Materials (Yantai) Co., Ltd.	Unlisted	2020.07.13	Management participation	505	-	100.00	33,848	-	-	-	-	100.00	33,848	77,008	1,506
SK Environmental Protection Materials (Yantai) Co., Ltd.	Unlisted	2019.02.28	Management participation	102	-	100.00	102	-	-	-	-	100.00	102	6,379	513
Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.	Unlisted	2023.03.06	Management participation	66,094	-	100.00	66,094	-	-	-	-	100.00	66,094	183,841	-15,200
SK Chemicals America	Unlisted	2002.07.26	Management participation	1,058	-	100.00	1,448	-	-	-	-	100.00	1,448	66,259	2,528
SK Chemicals GmbH	Unlisted	2008.06.20	Management participation	40	-	100.00	433	-	-	-	-	100.00	433	69,567	2,664
SK Chemicals Malaysia	Unlisted	2020.12.28	Management participation	373	1,347,316	100.00	373	-	-	-	1,347,316	100.00	373	582	28
Entis (formerly SK Cytech)	Unlisted	1987.08.10	Management participation	1,250	250,000	50.00	4,892	-	-	-	250,000	50.00	4,892	24,678	3,352
JSI Co., Ltd.	Unlisted	2015.04.29	Management participation	6,078	160,000	40.00	-	-	-	-	160,000	40.00	-	9,201	610
HDC Polyall	Unlisted	2022.03.31	Management participation	7,700	-	20.00	3,025	-	-	-3,025	-	20.00	-	60,171	-11,785
Eastman Fiber Korea Ltd. (EFKL) (preferred stocks)	Unlisted	Aug. 28, 2019	Simple investment	24,053	14,000,000	20.00	25,566	-	-	3,581	14,000,000	20.00	29,147	199,027	13,004
Korea Investment Bio Global Fund	Unlisted	2020.11.18	Simple investment	2,500	-	1.43	1,954	-	-549	198	-	1.43	1,603	301,932	-671
Standigm Inc. (preferred stocks)	Unlisted	2021.05.27	Simple investment	3,000	194,301	1.40	3,000	-	-	-	194,301	1.39	3,000	7,408	-9,638
J2HBIOTECH	Unlisted	2021.08.06	Simple investment	1,500	24,136	0.88	1,500	-	-	-	24,136	0.88	1,500	22,168	-6,903
Oncobix Co., Ltd.	Unlisted	2021.11.18	Simple investment	1,000	27,066	2.34	1,000	-	-	-	27,066	2.20	1,000	853	-2,817
Sante Health Ventures IV, LP	Unlisted	2021.11.04	Simple investment	971	-	5.30	6,598	-	2,678	3,264	-	5.30	12,540	143,963	42,268
Yongyeon Industrial District 4 Industrial Water Management Association	Unlisted	2006.12.29	Simple investment	128	-	31.70	419	-	-	-	-	31.70	419	1,573	32
Tiumbio Co., Ltd.	Listed	2023.12.28	Simple investment	20,000	2,320,185	8.30	20,000	-	-	-5,731	2,320,185	7.90	14,269	91,474	-16,901
Total					-	-	515,860	-	-9,291	-1,713	-	-	504,856	-	-

※ During the current period, the equity interest changed through a paid-in capital increase by SK bioscience Co., Ltd.

※ Prior to the previous period, a share purchase agreement was signed to sell 100% of the shares of SK chemicals (Shuzhou) Co., Ltd. to Smeong Foods Co., Ltd., and the sale was completed during the current period.

※ During the previous period, a new investment was made in Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd., and it was included as a subsidiary.

※ The controlling company sold 50% of the shares of its subsidiary of SK Chemicals Daejeong Co., Ltd., to Daejeong Chemicals & Metals Co., Ltd. The controlling company is judged to have control over SK Chemicals Daejeong Co., Ltd. based on the fact that the chief executive officer of the controlling company serves as the chief executive officer even after the equity interest was sold, and the chief executive officer has the decision-making authority given a deadlock situation.

※ The shares of Eastman Fiber Korea (EFKL) are preferred stocks with voting rights, and the ownership percentage is based on the total number of shares issued. The financial status for the most recent fiscal year is as of 2023.

※ The financial status for the most recent fiscal year of Sante Health Ventures IV, LP is as of 2023.

※ The shares of Standigm Inc. are convertible redeemable preferred stocks with voting rights, and the ownership percentage is based on the total number of shares issued.

※ This is the financial status based on the consolidated financial statements adjusted to achieve consistency with the accounting policies of the consolidated subsidiaries to those of the controlling company.

※ The corporations without a separation marking are based on the common stocks.

4. Major Management Contracts

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A. License-out contracts

[SK Bioscience]

1) Item: Recombinant Factor VIII (hemophilia treatment)

① Counterparty to contract	CSL (Australia)
② Contractual details	Granting of an exclusive license for recombinant Factor VIII (hemophilia treatment) in target territories
③ Target territories	All over the world except the Republic of Korea
④ Contract period	From May 2009 until the expiration of royalty term
⑤ Total contract value	(Note 1)
⑥ Amount received	(Note 1) (with no obligation to return)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as sales
⑨ Target technology	Recombinant Factor VIII
⑩ Progress of the development	On sale after securing permission for each territory after securing the permission and releasing in USA in 2016
⑪ Other matters	(Note 1)

(Note 1) The details have not been entered as they are trade secrets.

2) Item: Cell culture influenza vaccine bulk

① Counterparty to contract	GPO (Government Pharmaceutical Organization, Thailand), BGT (Biogenetech Co., Ltd., Thailand)
② Contractual details	As the Company transferred the technology for the cell culture influenza vaccine to the Government Pharmaceutical Organization (GPO) of Thailand, the Company is supplying the cell culture influenza vaccine bulk to the GPO through Biogenetech Co., Ltd. (BGT) in Thailand.
③ Target territories	Thailand
④ Contract period	From August 2023 to August 2033
⑤ Total contract value	US\$50,680,000
⑥ Amount received	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	(Note 1)
⑨ Target technology	Cell culture influenza vaccine
⑩ Progress of the development	Local technology transfer/approval in progress
⑪ Other matters	The contract value above is based on minimum contractual purchase quantities and unit prices and may be subject to change in the future by agreement with the contracting party.

(Note 1) The details have not been entered as they are trade secrets.

B. License-in contracts

[SK Chemicals]**1) Item: SKP204**

① Counterparty to contract	ITALFARMACO, ITF RESEARCH
② Contractual details	Secure domestic sales rights for SKP204, and use original developer's permitted data and patent rights
③ Target territories	Korea
④ Contract period	Contract's effective date: January 28, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	The down payment was converted into an intangible asset and amortized, following which the R&D expenses were recognized as expenses.
⑨ Target technology	Formulation change product of the existing Lou Gehrig's disease treatment
⑩ Progress of the development	Release after approval
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

2) Item: SKP205

① Counterparty to contract	Miravo Healthcare
② Contractual details	Secure domestic sales rights for SKP205, and use original developer's permitted data and trademark rights
③ Target territories	Korea
④ Contract period	Contract's effective date: July 28, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	The down payment was converted into an intangible asset and amortized, following which the R&D expenses were recognized as expenses.
⑨ Target technology	Migraine combination
⑩ Progress of the development	Release after approval
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

3) Item: SKP221

① Counterparty to contract	Korea United Pharm Inc.
② Contractual details	Joint development and consignment
③ Target territories	Korea
④ Contract period	Contract's effective date: June 28, 2022
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)

⑧ Accounting method	The down payment was converted into an intangible asset and amortized.
⑨ Target technology	Hyperlipidemia combination
⑩ Progress of the development	Phase 1 clinical trial
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

4) Item: SKP231

① Counterparty to contract	Samcheong Pharmaceutical
② Contractual details	Jointly developed
③ Target territories	Korea
④ Contract period	Contract's effective date: January 17, 2023
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	The down payment was converted into an intangible asset and amortized, following which the R&D expenses were recognized as expenses.
⑨ Target technology	Digestive drug
⑩ Progress of the development	Approval in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

5) Item: SKP241

① Counterparty to contract	Yuhan Corporation, Addpharma Co., Ltd.
② Contractual details	Joint development and consignment
③ Target territories	Korea
④ Contract period	Contract's effective date: February 20, 2024
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	The down payment was converted into an intangible asset and amortized, following which the R&D expenses were recognized as expenses.
⑨ Target technology	Hypertension and hyperlipidemia combination drug
⑩ Progress of the development	Release after approval
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

6) Item: SKP243

① Counterparty to contract	Donghwa Pharmaceutical Co., Ltd.

② Contractual details	Joint development and consignment
③ Target territories	Korea
④ Contract period	Contract's effective date: September 12, 2024
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	The down payment was converted into an intangible asset and amortized, following which the R&D expenses were recognized as expenses.
⑨ Target technology	Digestive drug
⑩ Progress of the development	Ongoing joint research
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

[SK bioscience]

1) Introduction of Novavax COVID-19 vaccine technology

① Counterparty to contract	Novavax (USA)
② Contractual details	Authorized to exclusively develop, produce, and market COVID-19 vaccines developed by Novavax in the target territory -
③ Target territories	Republic of Korea, Thailand, Vietnam
④ Date of contract execution	February 12, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	Pay a certain amount of the product sales as the royalties
⑧ Accounting method	Recognized as expenses
⑨ Target technology	Synthetic antigen based COVID-19 vaccine "NVX-CoV2373" production technology
⑩ Progress of the development	Commercial production, import, and sales
⑪ Other matters	The exclusive right to develop, produce, and sell the COVID-19 vaccine (including variant antigens) developed by Novavax in South Korea is granted until February 12, 2029, while for Thailand and Vietnam, non-exclusive rights are granted until June 30, 2028. A portion of the net sales revenue from sales in the aforementioned countries (South Korea, Thailand, Vietnam) will be paid to Novavax as royalties.-

(Note 1) The details have not been entered as they are trade secrets.

D. Joint development contract

[SK Bioscience]

1) Item: Next-generation pneumococcal vaccine

① Counterparty to contract	Sanofi (USA)
② Contractual details	Joint development and sales of a next-generation pneumococcal vaccine
③ Target territories	Worldwide
④ Date of contract execution	March 19, 2014 (Note 1)

⑤ Total contract value	US\$ 45M + EU€ 350M
⑥ Amount received	US\$ 45M + EU€ 50M (No obligation for return)
⑦ Contractual terms and conditions	(Note 2)
⑧ Accounting method	Recognized as sales
⑨ Target technology	Development technology for a pneumococcal protein conjugate vaccine
⑩ Progress of the development	GBP410 : Commencement of global Phase 3 clinical trials GBP410-NextGen : Basic research
⑪ Other matters	-

(Note 1) A revised agreement was signed in December 2024.

(Note 2) The total amount of advance payments and milestone payments received in stages based on development, approval, and commercialization.

(Note 3) Detailed information is not disclosed as it contains business-confidential details.

2) Item: Typhoid conjugate vaccine

① Counterparty to contract	International Vaccine Institute
② Contractual details	Joint development of a typhoid conjugate vaccine
③ Target territories	Worldwide
④ Date of contract execution	April 2013
⑤ Total contract value	Receipt of the R&D expenses
⑥ Amount received	(Note 1)
⑦ Contractual terms and conditions	Process development and commercial production supply for the typhoid conjugate vaccine developed by IVI (International Vaccine Institute)
⑧ Accounting method	(Note 1)
⑨ Target technology	Application of conjugation technology of antigen and carrier protein
⑩ Progress of the development	Export product approval obtained; WHO PQ approved
⑪ Other matters	Introduction of typhoid protein-conjugate vaccine technology from the International Vaccine Institute (IVI) CMC research and production carried out through the Bill & Melinda Gates Foundation (BMGF) fund, with the completion of the fund project

(Note 1) The details have not been entered as they are trade secrets.

3) COVID-19 vaccine (GBP510) project research/development contract

① Counterparty to contract	Coalition for Epidemic Preparedness Innovations (CEPI)
② Contractual details	COVID-19 vaccine (GBP510) project research/development
③ Target territories	-
④ Date of contract execution	December 2020
⑤ Total contract value	US\$ 10.0M
⑥ Amount received	(Note 1)
⑦ Contractual terms and conditions	Support for clinical drug production and clinical phase 1/2 trials, compliance with open access policy, and vaccine supply through the COVAX facility upon commercialization -
⑧ Accounting method	Deduction of R&D expenses
⑨ Target technology	Prophylactic vaccine against the SARS-CoV-2 viral antigen
⑩ Progress of the development	Obtained domestic product approval, with additional clinical studies underway
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

4) Contract for additional support for COVID-19 vaccine (GBP510) project research/development

① Counterparty to contract	Coalition for Epidemic Preparedness Innovations (CEPI)
② Contractual details	Contract for additional support for COVID-19 vaccine (GBP510) project research/development
③ Target territories	-
④ Date of contract execution	May 2021
⑤ Total contract value	US\$ 200.1M
⑥ Amount received	(Note 1)
⑦ Contractual terms and conditions	Scale-up production, development of variant vaccines, support for Phase 3 and additional clinical trials, compliance with open access policy, and vaccine supply through the COVAX facility upon commercialization -
⑧ Accounting method	Deduction of R&D expenses
⑨ Target technology	Prophylactic vaccine against the SARS-CoV-2 viral antigen
⑩ Progress of the development	Obtained domestic product approval, with additional clinical studies underway
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

5) Vaccine (GBP511) project research/development contract to respond to a wide range of variants

① Counterparty to contract	Coalition for Epidemic Preparedness Innovations (CEPI)
② Contractual details	Vaccine (GBP511) project research/development contract to respond to a wide range of variants
③ Target territories	-
④ Date of contract execution	December 2021
⑤ Total contract value	US\$ 57.6M
⑥ Amount received	(Note 1)
⑦ Contractual terms and conditions	Identification of antigen candidates, preclinical and Phase 1/2 clinical trials, compliance with open access policy, and vaccine supply through the COVAX facility upon commercialization -
⑧ Accounting method	Deduction of R&D expenses
⑨ Target technology	Universal vaccine for the prevention of Sabeco virus (including SARS-CoV and SARS-CoV-2 variants) antigens
⑩ Progress of the development	Non-clinical trials are underway
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

6) COVID-19 mRNA vaccine (GBP550) development

① Counterparty to contract	GF (Gates Foundation)
② Contractual details	COVID-19 mRNA vaccine project R&D contract
③ Target territories	-
④ Date of contract execution	November 2021
⑤ Total contract value	US\$1.6M
⑥ Amount received	(Note 1)

⑦ Contractual terms and conditions	Process development and non-clinical evaluation of candidates
⑧ Accounting method	Deduction of R&D expenses
⑨ Target technology	Prophylactic mRNA vaccine against the SARS-CoV-2 viral antigen
⑩ Progress of the development	Non-clinical trials completed and GF project concluded
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

7) Nasal Spray

① Counterparty to contract	International AIDS Vaccine Initiative (IAVI)
② Contractual details	Establishment of a nasal spray drug platform for the prevention and treatment of respiratory viruses such as COVID-19 and influenza -
③ Target territories	-
④ Date of contract execution	November 2021
⑤ Total contract value	US\$ 4M (Note 1)
⑥ Amount received	(Note 2)
⑦ Contractual terms and conditions	Process development, scale-up study, and clinical drug production
⑧ Accounting method	Deduction of R&D expenses
⑨ Target technology	The mechanism by which the protein administered to the nasal respiratory virus receptor binds, preventing the virus from binding to human receptors and preventing infection -
⑩ Progress of the development	Clinical sample production completed, non-clinical trials underway
⑪ Other matters	-

(Note 1) The total contract amount has been changed from US\$ 3.6M to US\$ 4M due to additional funding.

(Note 2) Detailed information is not disclosed as it contains business-confidential details.

8) Japanese encephalitis virus/Lassa fever mRNA vaccine (GBP560, GBP570) development

① Counterparty to contract	Coalition for Epidemic Preparedness Innovations (CEPI)
② Contractual details	Research and development of Japanese encephalitis virus and Lassa fever virus mRNA vaccine platforms
③ Target territories	-
④ Date of contract execution	October 2022
⑤ Total contract value	USD 140.0M (maximum)
⑥ Amount received	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Deduction of R&D expenses
⑨ Target technology	Prophylactic mRNA vaccine against Japanese encephalitis virus and Lassa fever virus antigens
⑩ Progress of the development	Japanese encephalitis virus mRNA vaccine: Non-clinical trials are underway (Note 2) Lassa virus mRNA vaccine: Candidate screening
⑪ Other matters	-

(Note 1) Detailed information is not disclosed as it contains business-confidential details.

(Note 2) Phase 1/2 clinical trials were initiated in February 2025.

C. Other contracts

[SK Chemicals]

1) Contract: Joint research

① Counterparty to contract	Standigm Inc.
② Contractual details	Joint research for discovery of candidates and development of new drugs using Standigm's AI technology
③ Target territories	Worldwide
④ Contract period	Date of contract execution: July 19, 2019
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	Standigm's AI technology related to new drug development
⑩ Progress of the development	Joint research in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

2) Contract: Joint research

① Counterparty to contract	Deargen Inc.
② Contractual details	Joint research for discovery of candidates and development of new drugs using Deargen's AI technology
③ Target territories	Worldwide
④ Contract period	Date of contract execution: October 20, 2020
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	Deargen's AI technology related to new drug development
⑩ Progress of the development	Contract terminated
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

3) Contract: Fund investment

① Counterparty to contract	Korea Investment Partners Co., Ltd.
② Contractual details	Investment as a partner for Korea Investment Partners' "Korea Investment Bio Global Fund"
③ Target territories	N/A

④ Contract period	Date of contract execution: November 18, 2020
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Investments are recognized as available-for-sale financial assets
⑨ Target technology	N/A
⑩ Progress of the development	Fund in operation
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

4) Contract: Joint research

① Counterparty to contract	DR. NOAH Biotech Co., Ltd.
② Contractual details	Joint research for discovery of candidates and development of new drugs using DR. NOAH Biotech's AI technology
③ Target territories	Worldwide
④ Contract period	Date of contract execution: November 24, 2020
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	DR. NOAH Biotech's AI technology related to new drug development
⑩ Progress of the development	Contract terminated
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

5) Contract: Equity investment

① Counterparty to contract	Standigm Inc.
② Contractual details	Participation as a strategic investor and equity investment
③ Target territories	N/A
④ Contract period	Date of contract execution: May 14, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as available-for-sale financial assets
⑨ Target technology	N/A
⑩ Progress of the development	Pre-IPO phase
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

6) Contract: Equity investment

① Counterparty to contract	J2H Biotech Co., Ltd.
② Contractual details	Participation as a strategic investor and equity investment
③ Target territories	N/A
④ Contract period	Date of contract execution: July 29, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as available-for-sale financial assets
⑨ Target technology	N/A
⑩ Progress of the development	Pre-IPO phase
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

7) Contract: Fund investment

① Counterparty to contract	Sante Ventures
② Contractual details	Investment as a partner for the fund of "Sante Health Ventures IV, LP"
③ Target territories	N/A
④ Contract period	Date of contract execution: September 14, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Investments are recognized as available-for-sale financial assets
⑨ Target technology	N/A
⑩ Progress of the development	Fund investment in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

8) Contract: Joint research

① Counterparty to contract	J2H Biotech Co., Ltd.
② Contractual details	Discovery of candidates and development of new drugs using the OPTIFLEX platform of J2H Biotech Co., Ltd.
③ Target territories	N/A
④ Contract period	Date of contract execution: November 1, 2021

⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	OPTIFLEX platform including the protein degradation technology of J2H Biotech Co., Ltd.
⑩ Progress of the development	Joint research in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

9) Contract: Equity investment

① Counterparty to contract	Oncobix Co., Ltd.
② Contractual details	Participation as a strategic investor and equity investment
③ Target territories	N/A
④ Contract period	Date of contract execution: November 18, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as available-for-sale financial assets
⑨ Target technology	N/A
⑩ Progress of the development	Series B stage
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

10) Contract: Joint research

① Counterparty to contract	Oncobix Co., Ltd.
② Contractual details	Discovery of candidates and development of new drugs using the new drug development platform of Oncobix Co., Ltd.
③ Target territories	N/A
④ Contract period	Date of contract execution: April 5, 2022
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	New drug development platform of Oncobix Co., Ltd.
⑩ Progress of the development	Contract terminated
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

11) Contract: Joint research

① Counterparty to contract	inCerebro Co., Ltd.
② Contractual details	Discovery of candidates and development of new drugs using the new drug development platform of inCerebro
③ Target territories	N/A
④ Contract period	Date of contract execution: April 7, 2022
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	New drug development platform of inCerebro
⑩ Progress of the development	Contract terminated
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

5. R&D Performance - <Life Science>

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[Pharma Business]

1) Item: SID710

① Classification	Generic
② Indicant	Dementia
③ Action mechanism	AchE inhibitor
④ Product characteristics	1st generic in Europe
⑤ Progress	Commercialization underway in Europe, USA, Brazil and South America, Middle East and others
⑥ Future plan	Expand markets
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 800 billion in the global market
⑩ Other matters	-

2) Item: SID1806

① Classification	Drug requiring data submission
② Indicant	Arthritis
③ Action mechanism	-
④ Product characteristics	Improvement of usage and dosage of original drugs
⑤ Progress	Approved

⑥ Future plan	Release in Korea
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 130 billion in the Korean market
⑩ Other matters	-

3) Item: SID1903

① Classification	Incrementally modified drug
② Indicant	Diabetes
③ Action mechanism	-
④ Product characteristics	Incrementally modified drug
⑤ Progress	Domestic sales and overseas licensing in progress
⑥ Future plan	Expand markets
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW \$1.5 trillion in the Korean market
⑩ Other matters	-

4) Item: SID2101

① Classification	Others
② Indicant	Migraine
③ Action mechanism	Selective serotonin receptor agonist
④ Product characteristics	Generic
⑤ Progress	Phase 1 clinical trial
⑥ Future plan	Approved
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Estimated at approximately KRW 22 billion in the Korean market
⑩ Other matters	-

5) Item: SID2102

① Classification	Generic
② Indicant	Thrombocytopenia
③ Action mechanism	TPO-RA (Thrombopoietin Receptor Agonist)
④ Product characteristics	Generic
⑤ Progress	Phase 1 clinical trial
⑥ Future plan	Approved

⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Estimated at approximately KRW 2 trillion in 2022 in the global market
⑩ Other matters	-

6) Item: SID2301

① Classification	Generic
② Indicant	Anti-inflammatory, analgesic
③ Action mechanism	COX-2 inhibitor
④ Product characteristics	Generic
⑤ Progress	Formulation research
⑥ Future plan	Phase 1 clinical trial
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 130 billion in the Korean market
⑩ Other matters	-

7) Item: SID2304

① Classification	Incrementally modified drug
② Indicant	Hypertension, hyperlipidemia
③ Action mechanism	Angiotensin receptor blocker + HMG-CoA reductase inhibitor
④ Product characteristics	Incrementally modified drug
⑤ Progress	Formulation research
⑥ Future plan	Phase 1 clinical trial
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 90 billion in the Korean market
⑩ Other matters	-

8) Item: SID2305

① Classification	Generic
② Indicant	Hypertension
③ Action mechanism	Angiotensin receptor blocker + Diuretics
④ Product characteristics	Generic
⑤ Progress	Formulation research
⑥ Future plan	Phase 1 clinical trial
⑦ Competing products	-

⑧ Related papers	-
⑨ Market size	Approximately KRW 90 billion in the Korean market
⑩ Other matters	-

9) Item: SID2403

① Classification	Others
② Indicant	Migraine
③ Action mechanism	Selective serotonin receptor agonist
④ Product characteristics	Generic
⑤ Progress	Formulation research
⑥ Future plan	Phase 1 clinical trial
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately 30 billion KRW in Korea
⑩ Other matters	-

10) Item: SID2405

① Classification	Incrementally modified drug
② Indicant	Arthritis
③ Action mechanism	-
④ Product characteristics	Incrementally modified drug
⑤ Progress	Formulation research
⑥ Future plan	Phase 1 clinical trial
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately 140 billion KRW in Korea
⑩ Other matters	-

11) Item: SID2406

① Classification	Incrementally modified drug
② Indicant	Gout
③ Action mechanism	-
④ Product characteristics	Improvement of dosage and administration
⑤ Progress	Formulation research
⑥ Future plan	Phase 1 clinical trial
⑦ Competing products	-
⑧ Related papers	-

⑨ Market size	Approximately 30 billion KRW in Korea
⑩ Other matters	-

12) Item: SID2407

① Classification	Generic
② Indicant	Hypertension
③ Action mechanism	-
④ Product characteristics	Generic
⑤ Progress	Formulation research
⑥ Future plan	Phase 1 clinical trial
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 90 billion in the Korean market
⑩ Other matters	-

13) Item: NCE202

① Classification	New drug
② Indicant	Non-alcoholic steatohepatitis
③ Action mechanism	-
④ Product characteristics	-
⑤ Progress	Non-clinical
⑥ Future plan	Global L/O
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Expected to be approximately KRW 26 trillion in 2027 in markets of 7 major countries
⑩ Other matters	-

14) Item: NCE223

① Classification	New drug
② Indicant	Cancer
③ Action mechanism	-
④ Product characteristics	-
⑤ Progress	Discovery
⑥ Future plan	Global L/O
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Target carcinoma undetermined

⑩ Other matters	-

15) Item: NCE242

① Classification	New drug
② Indicant	Idiopathic pulmonary fibrosis
③ Action mechanism	-
④ Product characteristics	-
⑤ Progress	Discovery
⑥ Future plan	Global L/O
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Expected to be approximately KRW 3.8 trillion in 2025 in markets of 7 major countries
⑩ Other matters	-

16) Item: SKP201

① Classification	Generic
② Indicant	RA
③ Action mechanism	JAK inhibitor
④ Product characteristics	1st generic of the same ingredient
⑤ Progress	Approved
⑥ Future plan	Release in Korea
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Estimated at approximately KRW 12 billion in the market for same ingredient in Korea
⑩ Other matters	-

17) Item: SKP205

① Classification	Incrementally modified drug
② Indicant	Migraine
③ Action mechanism	Serotonin receptor + Inhibition for COX enzymes
④ Product characteristics	Incrementally modified combination
⑤ Progress	Approved
⑥ Future plan	Release in Korea (2024.09.01)
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Estimated at approximately KRW 22 billion in the Korean market
⑩ Other matters	-

18) Item: SKP221

① Classification	Incrementally modified drug
② Indicant	Dyslipidemia
③ Action mechanism	HMG-CoA(3-hydroxy-3-methylglutaryl-coenzyme A) inhibitor /PPARα(Peroxisome Proliferator Activated Receptor type alpha) agonist
④ Product characteristics	Incrementally modified combination
⑤ Progress	Phase 1 clinical trial
⑥ Future plan	Approved
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 600 billion in the Korean market
⑩ Other matters	-

19) Item: SKP231

① Classification	Generic
② Indicant	Drug for digestive diseases
③ Action mechanism	P-CAB
④ Product characteristics	Generic of the same ingredient
⑤ Progress	Phase 1 clinical trial
⑥ Future plan	Approved
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Estimated at approximately KRW 500 billion in the Korean market
⑩ Other matters	-

20) Item: SKP241

① Classification	Incrementally modified drug
② Indicant	Hypertension, hyperlipidemia
③ Action mechanism	HMG-CoA reductase inhibitor + Cholesterol absorption inhibitor + Calcium channel blocker
④ Product characteristics	Incrementally modified combination
⑤ Progress	Approved
⑥ Future plan	Release in Korea
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately 50 billion KRW market size in Korea
⑩ Other matters	-

21) Item: SKP243

① Classification	Generic
② Indicant	Drug for digestive diseases
③ Action mechanism	Potassium competitive acid blocker
④ Product characteristics	Generic of the same ingredient
⑤ Progress	Completion of Phase 1 clinical trial
⑥ Future plan	Approved
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Estimated market size of approximately 800 billion KRW in Korea
⑩ Other matters	-

[SK bioscience]

1) Item: GBP510

① Classification	Vaccine medicine
② Indicant	Prevention of severe acute respiratory syndrome caused by SARS-CoV-2 virus
③ Action mechanism	Prophylactic vaccine against the SARS-CoV-2 viral antigen
④ Product characteristics	Recombinant nanoparticle protein vaccines
⑤ Progress	Obtained domestic product approval (Note 1)
⑥ Future plan	Completion of ongoing heterologous booster Phase 3 clinical trial and preparation of the report
⑦ Competing products	12 products listed for emergency use authorization by WHO (2023, source: covid19.trackvaccines.org) (Oxford/AstraZeneca (AZD1222), Moderna (mRNA-1273), Pfizer/BioNTech (BNT162b2), etc.)
⑧ Related papers	Developing Covid-19 Vaccines at Pandemic Speed, N England Journal of Medicine, DOI: 10.1056/NEJMp2005630 COVID-19 Vaccine: A comprehensive status report, Virus Research (2020), doi: https://doi.org/10.1016/j.virusres.2020.198114 Elicitation of potent neutralizing antibody responses by designed protein nanoparticle vaccines for SARS-CoV-2, bioRxiv preprint doi: https://doi.org/10.1101/2020.08.11.247395
⑨ Market size	USD 20,496 million in 2023 (2023, source: Evaluate Pharma)
⑩ Other matters	Technology transfer from the IPD developer of the University of Washington
	Development carried out through funding from the Gates Foundation and CEPI

(Note 1) Following the transition to endemic status and the WHO's recommendation for strain composition of the variant vaccine, the MHRA marketing authorization was voluntarily withdrawn after approval, and the WHO Emergency Use Listing was voluntarily rescinded after inclusion.

2) Item: NBP618

① Classification	Vaccine medicine
② Indicant	Prevention of typhoid
③ Action mechanism	Prophylactic vaccine against typhoid antigen
④ Product characteristics	Application of conjugation technology of antigen and carrier protein
⑤ Progress	Export product approval obtained; WHO PQ in progress
⑥ Future plan	Overseas approval in progress
⑦ Competing products	Typhim VI (Sanofi), Peda Typh (Bio-Med)
⑧ Related papers	Safety and immunogenicity of a Vi-DT typhoid conjugate vaccine: Phase I trial in Healthy Filipino adults and children. Vaccine. 2018 Jun 18;36(26):3794-3801. doi: 10.1016/j.vaccine.2018.05.038.
⑨ Market size	USD 321 million in 2022 (2023, source: Data Bridge Market Research)
⑩ Other matters	Introduced the typhoid polysaccharide conjugate vaccine production technology from the International Vaccine Institute (IVI) and conducted clinical research via funds from the Bill & Melinda Gates Foundation.

3) Item: GBP410

① Classification	Vaccine medicine
② Indicant	Prevention of invasive diseases and otitis media caused by pneumococci
③ Action mechanism	Prophylactic vaccine against pneumococcal antigen
④ Product characteristics	Combination of polysaccharide antigens and conjugate proteins
⑤ Progress	Completed Phase 2 clinical trials in the U.S. (2020-2023, for pediatric/adult patients), with global Phase 3 clinical trials ongoing
⑥ Future plan	Completed global Phase 3 clinical trials and submitted approval application (for pediatric patients)
⑦ Competing products	Prevenar 13 (Pfizer), Prevenar 20 (Pfizer), Synflorix (GSK), Vaxneuvance (Merck)
⑧ Related papers	Creation, characterization, and assignment of opsonic values for a new pneumococcal OPA calibration serum panel (Ewha QC sera panel A) for 13 serotypes. Medicine (Baltimore). 2018 Apr;97(17):e0567. doi: 10.1097/MD.00000000000010567. Comparative evaluation of a newly developed 13-valent pneumococcal conjugate vaccine in a mouse model. Hum Vaccin Immunother. 2017 May 4;13(5):1169-1176. doi: 10.1080/21645515.2016.1261772. Epub 2016 Dec 14.
⑨ Market size	USD 7,965 million in 2023 (2023, source: Evaluate Pharma)
⑩ Other matters	Joint research with Sanofi

4) Item: NBP615

① Classification	Vaccine medicine

② Indicant	Prevention of cervical cancer and genital warts
③ Action mechanism	Prophylactic vaccine against human papillomavirus antigen
④ Product characteristics	Virus-like particle utilization
⑤ Progress	Phase 1/2 clinical trial completed (2019)
⑥ Future plan	Decision on future development strategy
⑦ Competing products	Gardasil (MSD), Cervarix (GSK)
⑧ Related papers	-
⑨ Market size	USD 9.102 billion in 2023 (2023, source: Evaluate Pharma)
⑩ Other matters	-

5) Item: NBP613

① Classification	Vaccine medicine
② Indicant	Prevention of pediatric enteritis
③ Action mechanism	Prophylactic vaccine against rotavirus antigen
④ Product characteristics	Live attenuated vaccine for rotavirus
⑤ Progress	Phase 1/2 clinical trial completed (2016)
⑥ Future plan	Decide on future development strategies based on the research results
⑦ Competing products	Rotarix (GSK), Rotatech (MSD)
⑧ Related papers	-
⑨ Market size	USD 2.432 billion in 2021 (2023, source: Global Vaccine Market Model - data-sharing collaboration between BMGF, Gavi, UNICEF and WHO managed by Linksbridge)
⑩ Other matters	-

※ Basic research and non-clinical stage products are not included in the detailed table.

【 Confirmation of Experts 】

1. Confirmation of Experts

- Not applicable

2. Interest with Experts

- Not applicable