

SK chemicals
2023 4Q Earnings Release



We care for the future.
Healthcare, Earthcare

Disclaimer

The financial information in this document are consolidated earnings results based on K-IFRS. (Korea International Financial Reporting Standards)

Forecasts and projections contained herein are based on current business environment and management strategies.

Please note it may differ from actual results, due to uncertainties including changes in the future business environment and unaccounted variables.

1

Earnings Release



4Q23 Highlight



Performance

Revenue 432bn KRW
(Δ 9.6% YoY, Δ 25.8% QoQ)

OP 5.1bn KRW
(Δ 88.6% YoY, Δ 93.9% QoQ)



Green Chemical Business

Strengthening Biz. Model
- laying the foundation for
Closed-Loop



Pharma Business

**Achieved historical-high
revenue by
product sales hike**



Vaccine (SK bioscience)

**Novavax distribution
and strong sales of
flu/zoster vaccine**

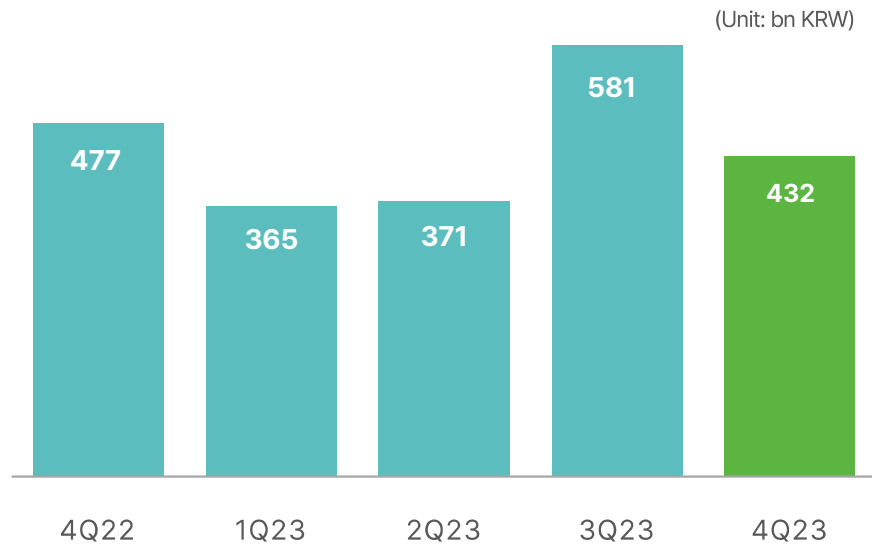
4Q23 Performance Review (Consolidated)

Revenue

432bn KRW

($\Delta 9.6\%$ YoY, $\Delta 25.8\%$ QoQ)

Despite revenue increase of own business, consolidated revenue declined due to the impact of subsidiary's performance

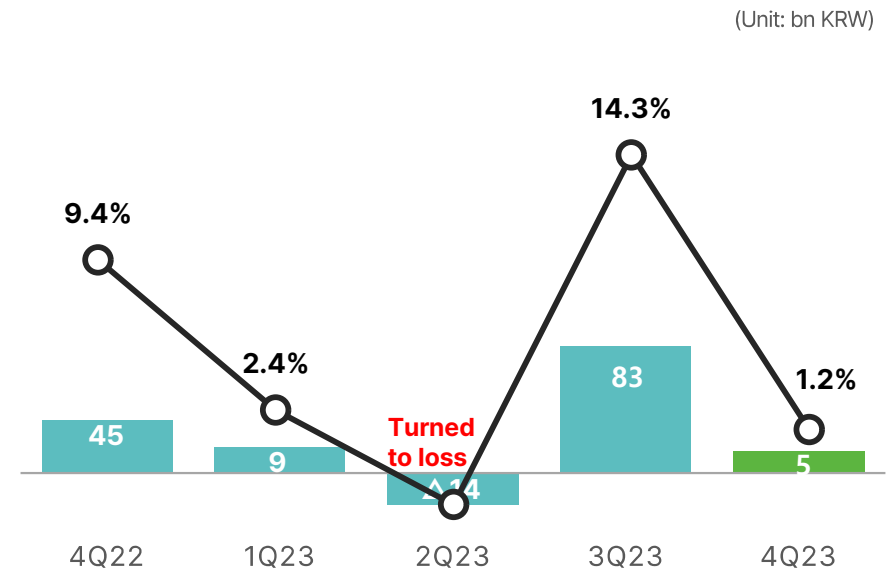


Operating profit & margin

5bn KRW

($\Delta 88.6\%$ YoY, $\Delta 93.9\%$ QoQ)

Profit and profitability decreased due to revenue decline



4Q23 Performance Review (Separate)

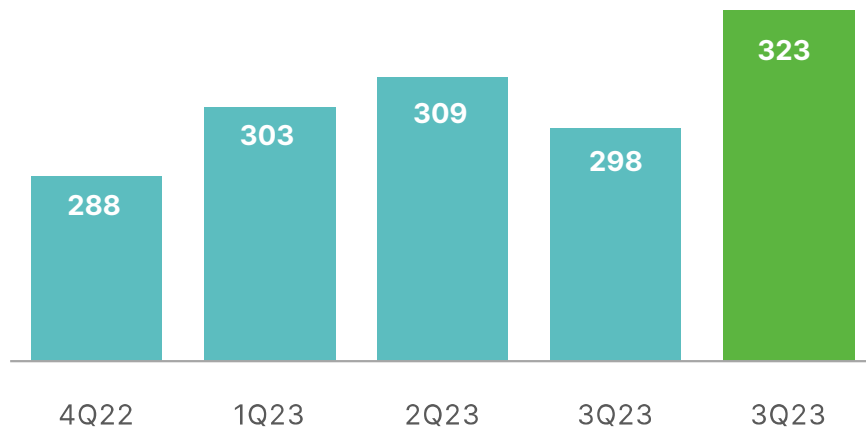
Revenue

323bn KRW

(+12.0 YoY, +8.3% QoQ)

Despite slight revenue decline in the green chemicals, revenue increased thanks to strong performance in the pharma business

(Unit: bn KRW)



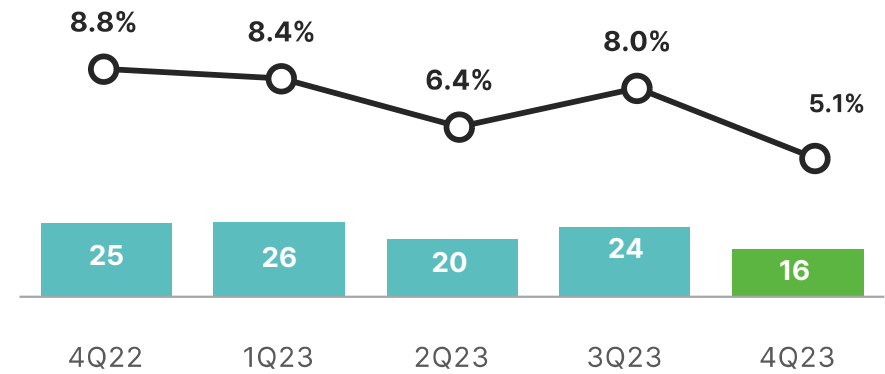
Operating profit & margin

16bn KRW

(Δ 35.6% YoY, Δ 31.4% QoQ)

Profit decreased due to low sales in Copolyester business, despite Pharma business' profit increased

(Unit: bn KRW)



Performance Review by Division

Green Materials – Copolyester & Petrochem

Performance and Outlook

'23.4Q Performance

Revenue **198bn KRW** ($\Delta 4.7\%$ YoY, $\Delta 0.6\%$ QoQ)

Revenue declined due to product mix change, whereas sales volume remains steady

Operating profit **18bn KRW** ($\Delta 46.3\%$ YoY, $+3.2\%$ QoQ)

Profit and profitability decreased due to product mix and cost increase

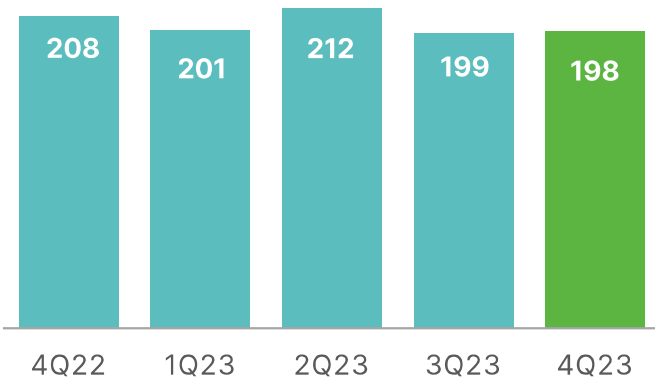
'24.1Q Outlook

Strengthening high-profitability portfolio

vs. Ocean freight increase

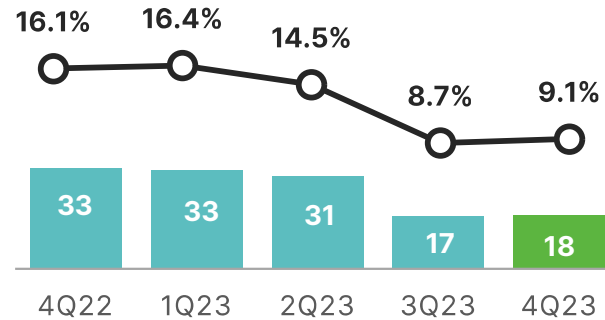
Revenue

(Unit: bn KRW)



OP & OPM

(Unit: bn KRW)



※ Including performance of America/Europe sales subsidiaries

Main Product

Products

Applications



Performance Review by Division

Life Science - Pharma

Performance and Outlook

'23.4Q Performance

Revenue **106bn KRW** (+32.3% YoY, +8.2% QoQ)

Revenue increased thanks to increased sales in main products

Operating profit **8bn KRW** (+23.0% YoY, Δ 30.0% QoQ)

Profit increased followed by revenue growth

'24.1Q Outlook

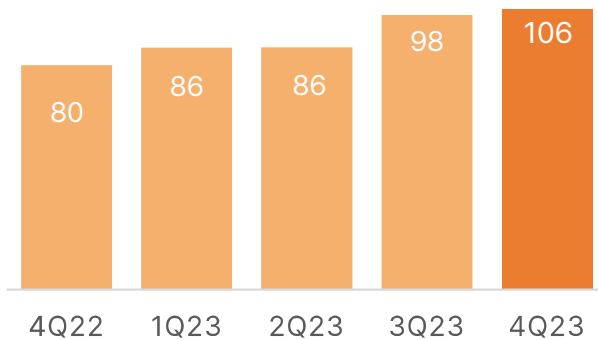
Robust sales
Continues

vs.

Concerns in
cost increase

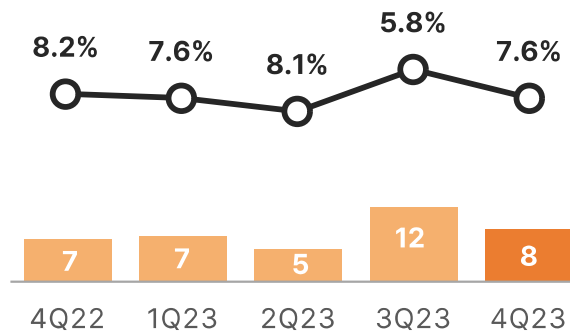
Revenue

(Unit: bn KRW)

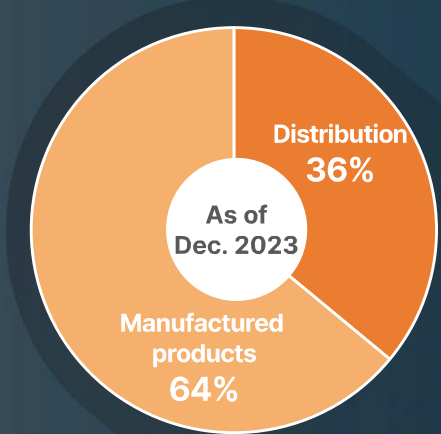


OP & OPM

(Unit: bn KRW)



Sales Composition



Main Products



Joins

Natural product based anti-arthritic treatment



Ginexin

blood circulation disorder treatment & Cognitive enhancer



Rivastigmine patch

Anti-dementia treatment patch



Performance Review by Division

Life Science - SK bioscience

Performance and Outlook

'23.4Q Performance

Revenue **91 bn KRW** ($\Delta 35.4\%$ YoY, $\Delta 60.9\%$ QoQ)

Reduced revenue due to absence of SKYConvione sales, partially offset by Novavax distribution and strong sales of flu/zoster vaccine

Operating profit **$\Delta 8$ bn KRW** (Turned to loss YoY, Turned to loss QoQ)

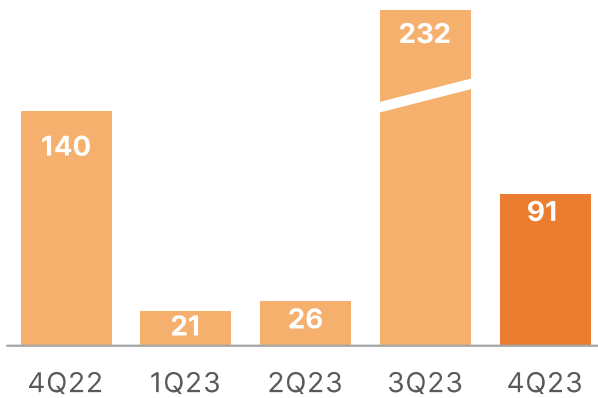
Profit decreased due to revenue decrease and R&D expense increase

'24.1Q Outlook

SKYVAX sales continues to grow and invest in R&D for future growth

Revenue

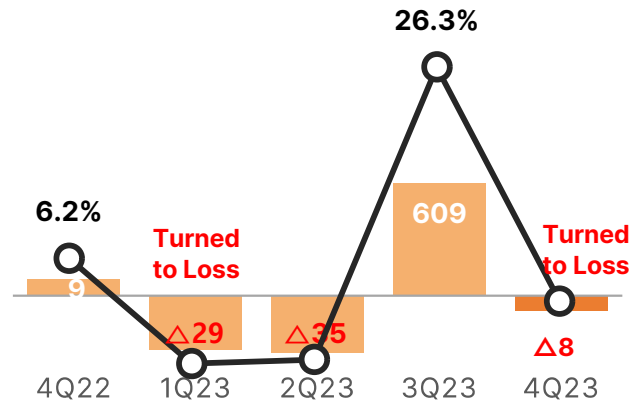
(Unit: bn KRW)



* Performance : Consolidated

OP & OPM

(Unit: bn KRW)



Overview

Novavax Vaccine Distribution

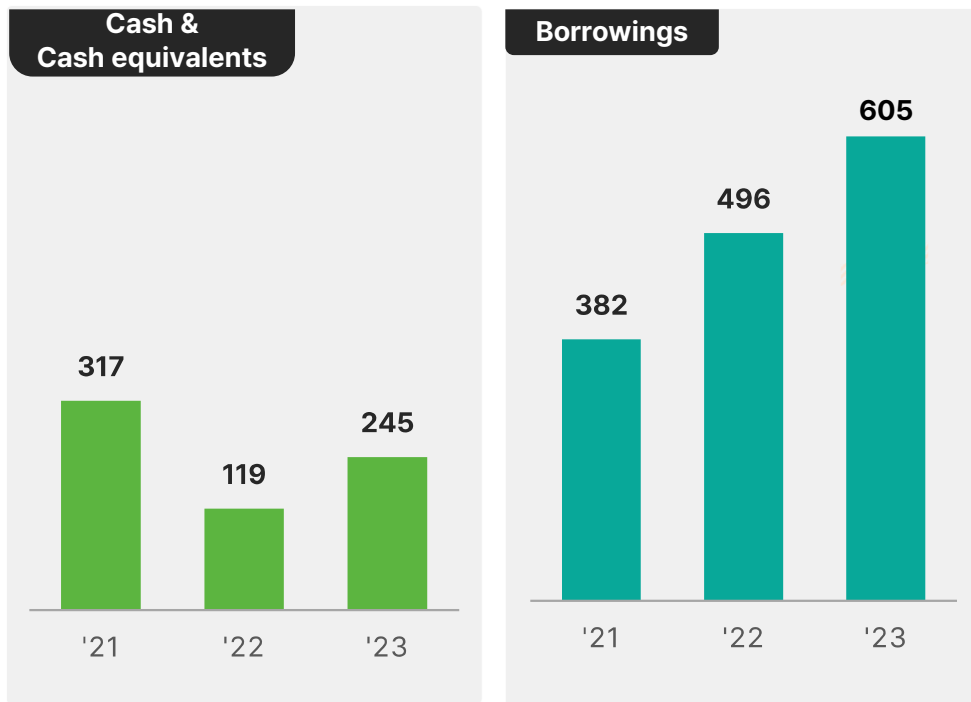
- Distributed Novavax, the only alternative to mRNA XBB Vaccine and differentiated with the strength of protein-base vaccines in endemic

Strong Flu/Zoster Vaccine Sales

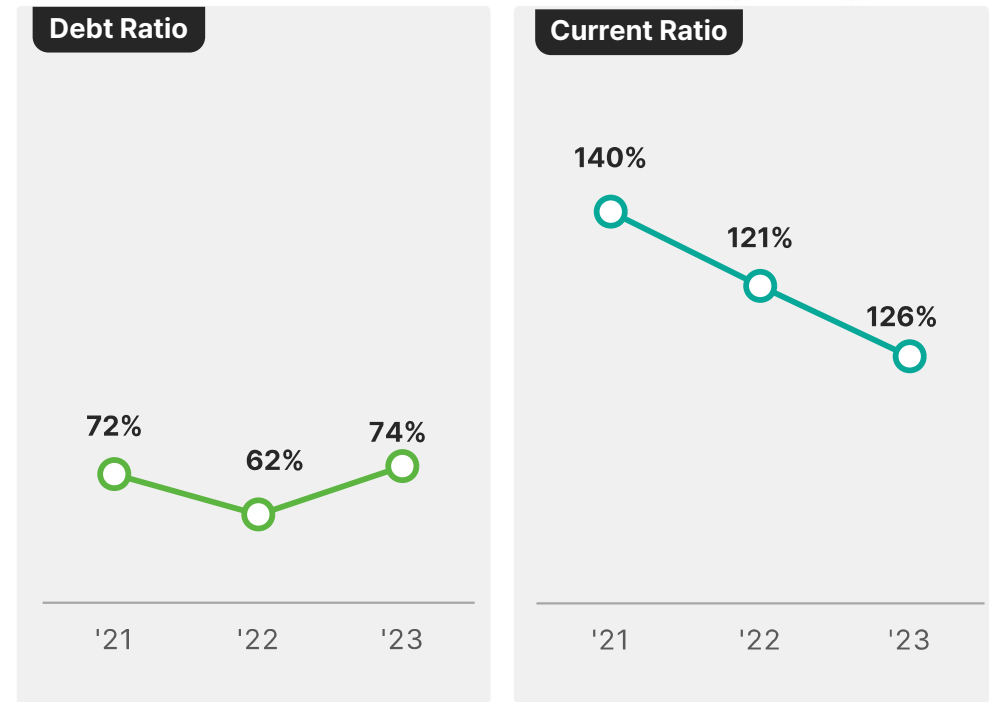
- Flu vaccine sales resumed after 2nd half of 2023
- Zoster vaccine sales continues to grow

Financial Highlights

Financial status (Separate / Unit: KRW Bn)

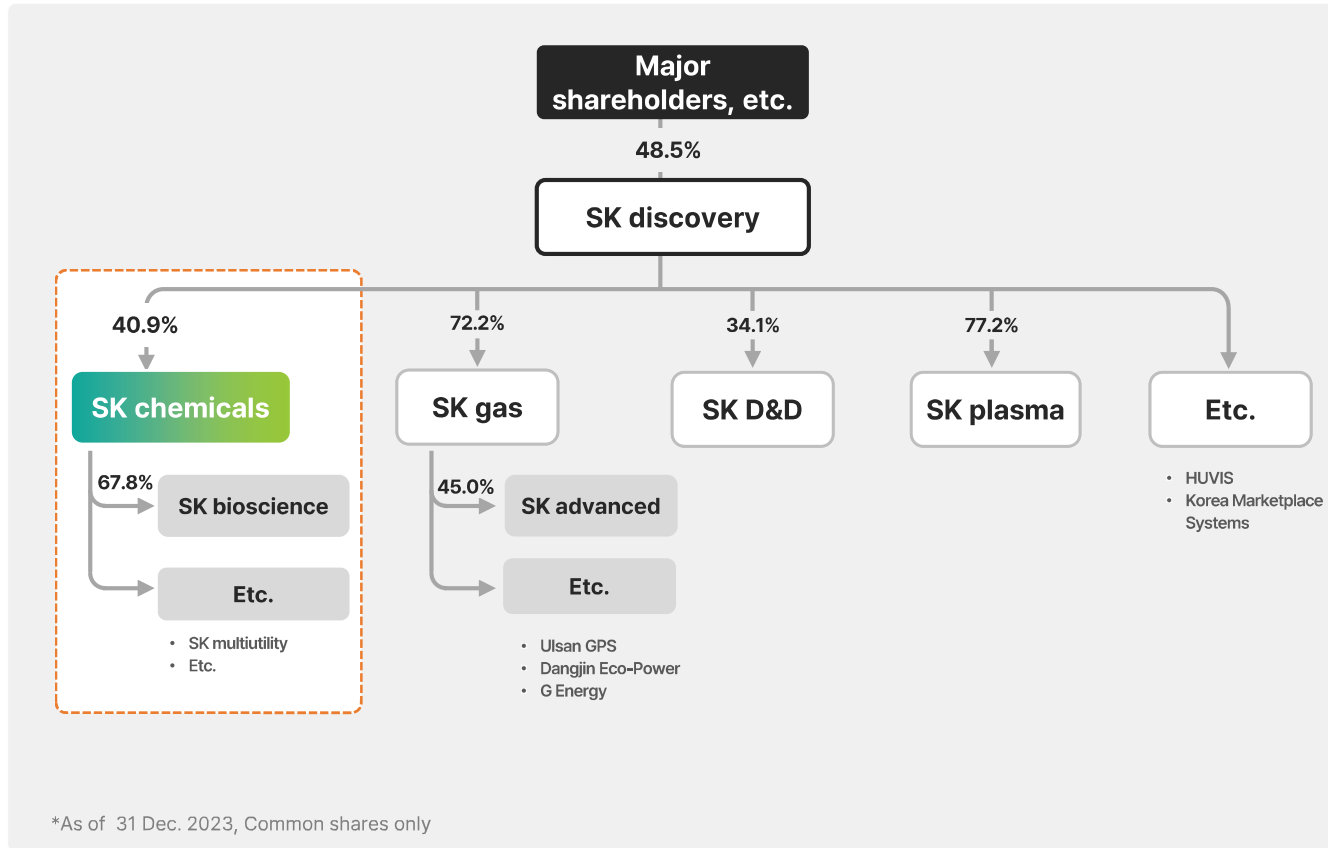


Financial Ratio (Separate)

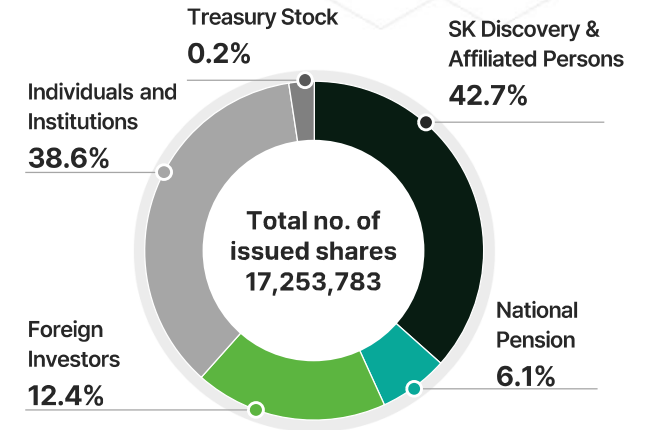


Governance and Shareholders

Corporate Governance



Shareholder Structure

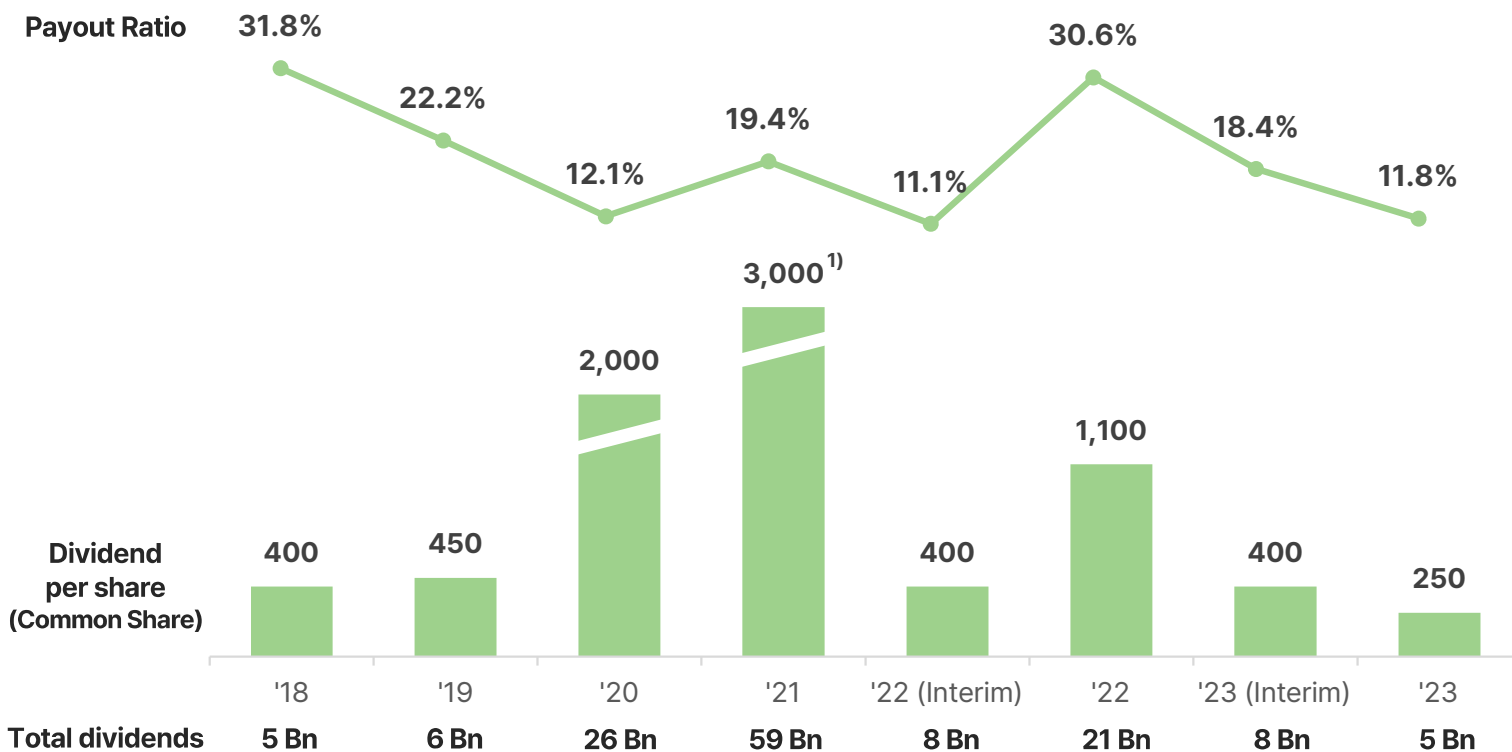


Shareholders Category	No. Shares
SK Discovery & Affiliated Persons	7,361,072
National Pension	1,052,651
Foreign Investors	2,140,442
Individuals and Institutions	6,668,761
Treasury Stock	30,857
Total no. of issued shares	17,253,783

*As of 31 Dec. 2023, Common shares only

Shareholder returns

Dividend



1) Considering the capital increase without compensation, the amount of dividends per share is 3,000.

Others

'17. 6 Retirement of Stock¹⁾

'21. 10 Announced dividend policy²⁾

'21. 11 50% capital increase without consideration

'22. 3 Announced Buy-back of Stock (50 Bn KRW)

'22. 10 Retirement of Stock (50 Bn KRW)³⁾

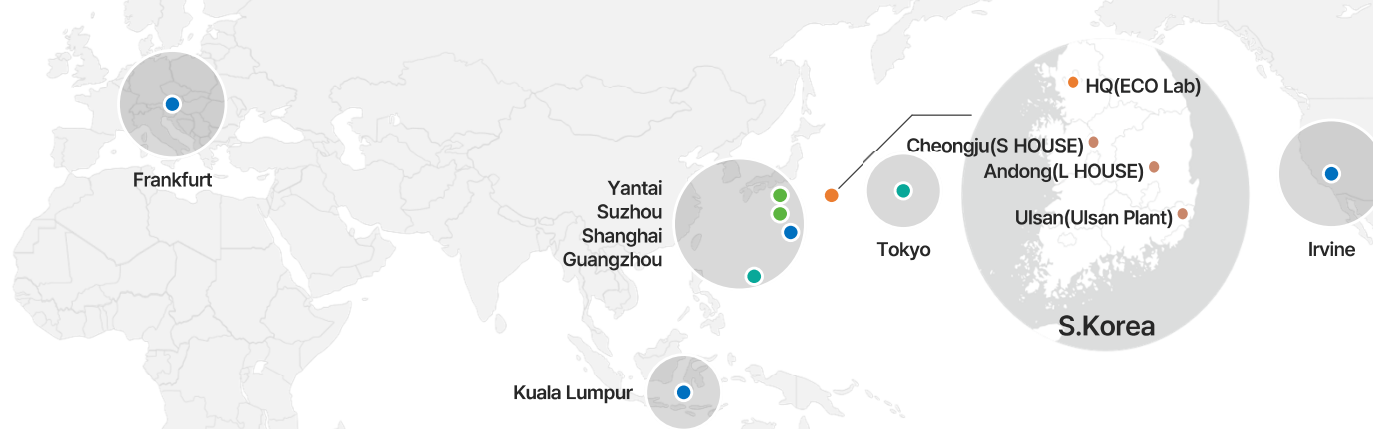
1) 1,959,120 shares

2) Determining the total amount of dividends per share

3) Retired 369,400 shares

Global Network

● HQ(1) ● Domestic Plants(3) ● Overseas Offices (2) ● Overseas Plants (3) ● Overseas Corporations(4)



SK Shantou



Construction Status '19 r-BHET , CR-PET Plant takeover (Shuye)
'23 Mar. Acquisition of Tangible Assets (Shuye)

Production Items r-BHET , CR-PET etc.

Production Capacity r-BHET : 70,000 tons / CR-PET 50,000 tons annually

Ulsan Plant



Certifications ISO 14001(Environment) / ISO 45001 (Safety and Health) / ISO 9001(Quality)

Construction Status '89 SEP. PTA / DMT Plant completion
'01 JAN. CHDM / PETG Plant completion
'22 Feb. PO3G Plant completion

Production Items Copolyester resin, DMT etc.

Production Capacity 450,000 tons annually ¹⁾

Cheongju Plant (S HOUSE)



Certifications K GMP/ EU GMP(solid tablets, patches)

Construction Status '09 JUL Cheongju plant takeover
'12 JUL Production building completion
'14 MAR Patch building reconstruction

Production Items Solid tablets and patches

Production Capacity 760m solid tablets, 66m patch pouches annually

Andong Plant (L HOUSE)



Certifications MFDS & EU GMP Certifications

Construction Status '12 DEC Completion

Production Items Flu vaccine, varicella/herpes zoster vaccine, COVID vaccine (CMO/CDMO)

Production Capacity Approximately 500m dozens annually based on finished products

1) Reflecting operation of new production facility*(#4) from 15th Jun 2021

Financial Statements (Consolidated)

Balance Sheet

(Unit : KRW Bn)

Items	'22	'23
Current assets	2,519	2,204
- Current account	2,036	1,828
- Inventory	483	377
Non-current assets	1,427	1,954
- Investment in affiliated companies and joint ventures	13	10
- Tangible property	1,193	1,602
- Intangible property	52	54
- Other Non-current assets	169	288
Total assets	3,946	4,159
Current liabilities	1,059	830
Non-current liabilities	178	653
Total liabilities	1,237	1,483
Equity attributable to the parent company	2,147	2,119
- Capital stock	99	99
- Consolidated capital surplus	1,199	1,212
- Consolidated other components of equity	△22	△22
- Accumulated other comprehensive income	2	△37
- Consolidated earned surplus	869	867
Non-controlling interest	562	557
Total equity	2,709	2,676
Total liabilities and equity	3,946	4,159

Income Statement

(Unit : KRW Bn)

Items	'22.4Q	'23.1Q	'23.2Q	'23.3Q	'23.4Q
Revenue	477	365	371	581	432
- Cost of Revenue	331	267	282	396	332
- Gross profit from Revenue	146	98	90	185	100
- Revenue and administrative expenses	101	89	104	102	95
Operating profits	45	9	△14	83	5
- Other non-operating income	0.8	5	2	3	2
- Other non-operating expense	14	8	13	0.8	23
- Financial income	21	59	28	22	21
- Financial expense	7	54	28	30	14
- Share of profits	△0.8	△0.5	△0.4	△0.4	△2
Earnings before interest and taxes	48	10	△25	77	△11
- Income tax expense	△36	△1	△9	15	0.1
Consolidated net income	84	11	△16	63	△11
- Equity attributable to the parent company	74	16	△11	47	△12
- Non-controlling interest	9	△4	△5	16	1

Financial Statements (Seperate)

Balance sheet

(Unit: KRW Bn)

Items	'22	'23
Current assets	645	673
- Current account	401	441
- Inventory	244	232
Non-current assets	1,165	1,283
- Investment in affiliated companies and joint ventures	384	444
- Tangible property	662	693
- Intangible property	32	30
- Other Non-current assets	87	115
Total assets	1,811	1,956
Current liabilities	535	653
Non-current liabilities	156	179
Total liabilities	691	832
Capital	99	99
Capital surplus	158	158
Other components of equity	△13	△13
Earned surplus	876	880
Total equity	1,120	1,124
Total liabilities and equity	1,811	1,956

Income Statement

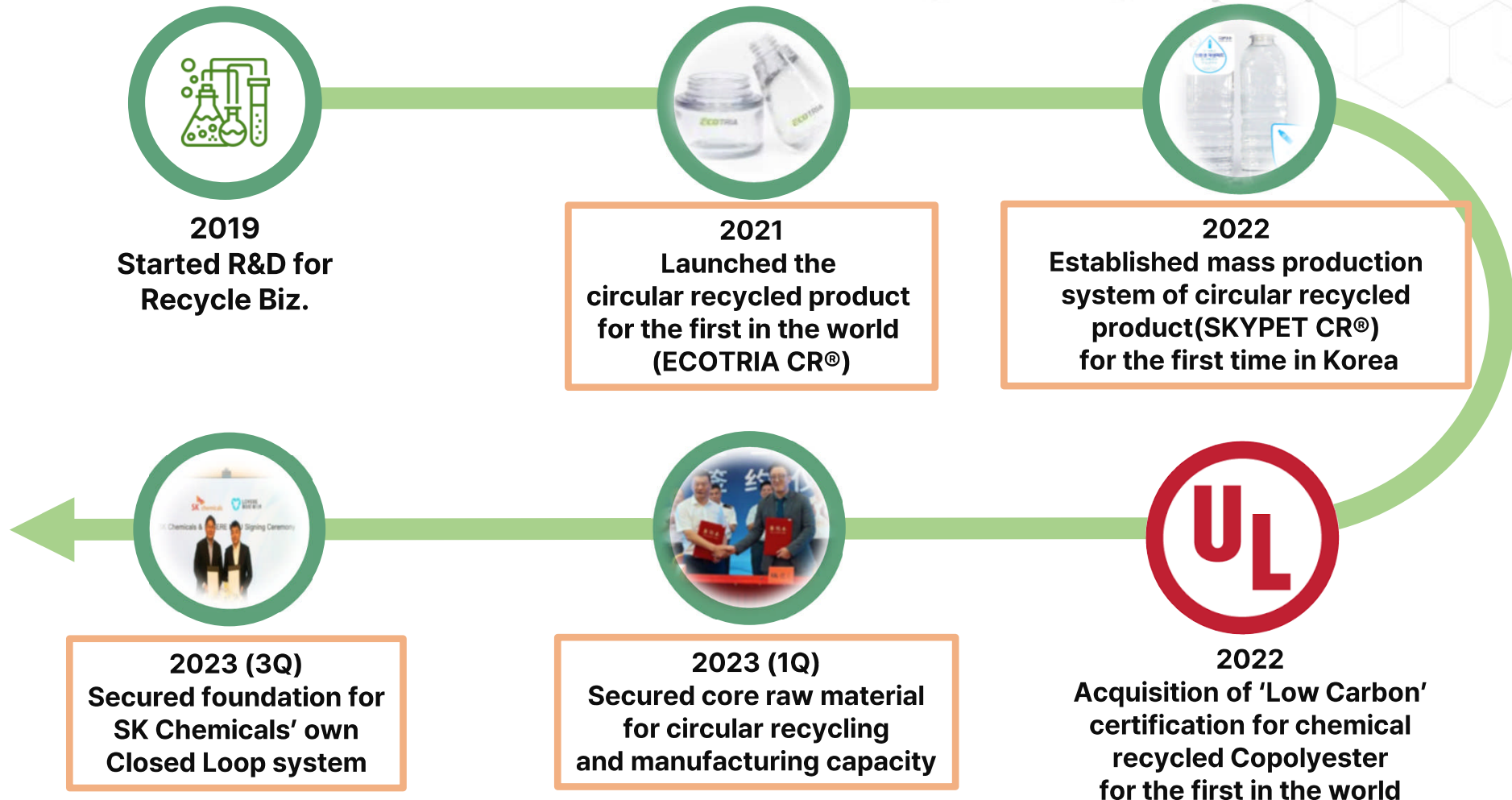
(Unit: KRW Bn)

Items	'22.4Q	'23.1Q	'23.2Q	'23.3Q	'23.4Q
Revenue*	288	303	309	298	323
- Cost of Revenue	212	228	239	226	254
- Gross profit from Revenue	76	75	71	72	69
- Revenue and administrative expenses	51	49	51	48	52
Operating profits*	25	26	20	24	16
- Other non-operating income	4	3	2	2	17
- Other non-operating expense	12	3	10	4	25
- Financial income	5	16	7	7	10
- Financial expense	15	15	13	11	12
Earnings before interest and taxes*	7	26	5	18	7
- Income tax expense	1	10	0.7	4	△0.1
Net income	6	17	5	14	7

Circular Recycle Biz.



Recycle Biz. History

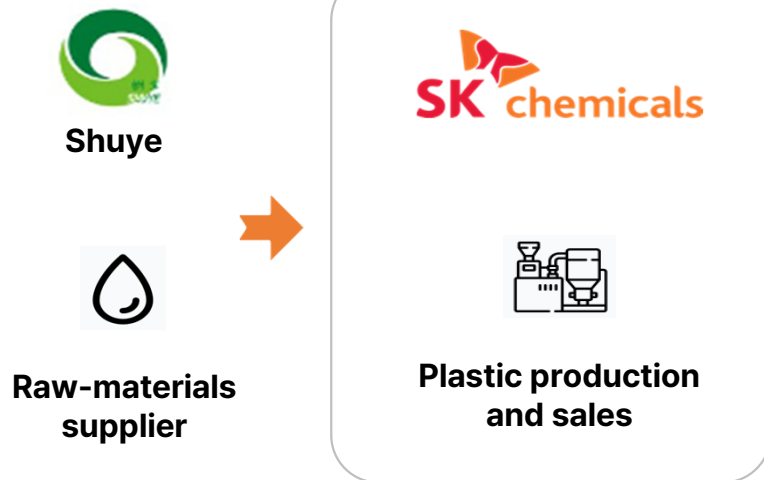


* 'Circular Recycle' refers to 'Chemical Recycle' in this report

Competency (1) : Internalization of core raw materials

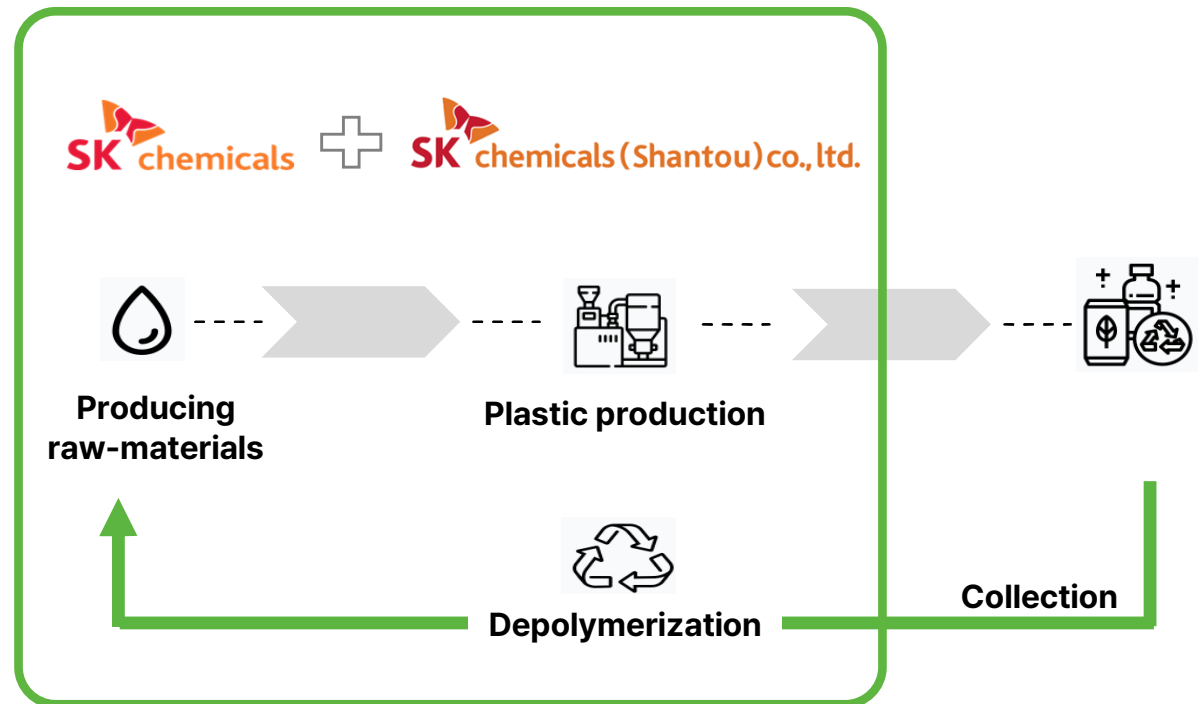
Internalized core raw materials(r-BHET) by acquisition of Shuye's technology and facilities

AS-IS



"Outsourcing raw materials"

TO-BE

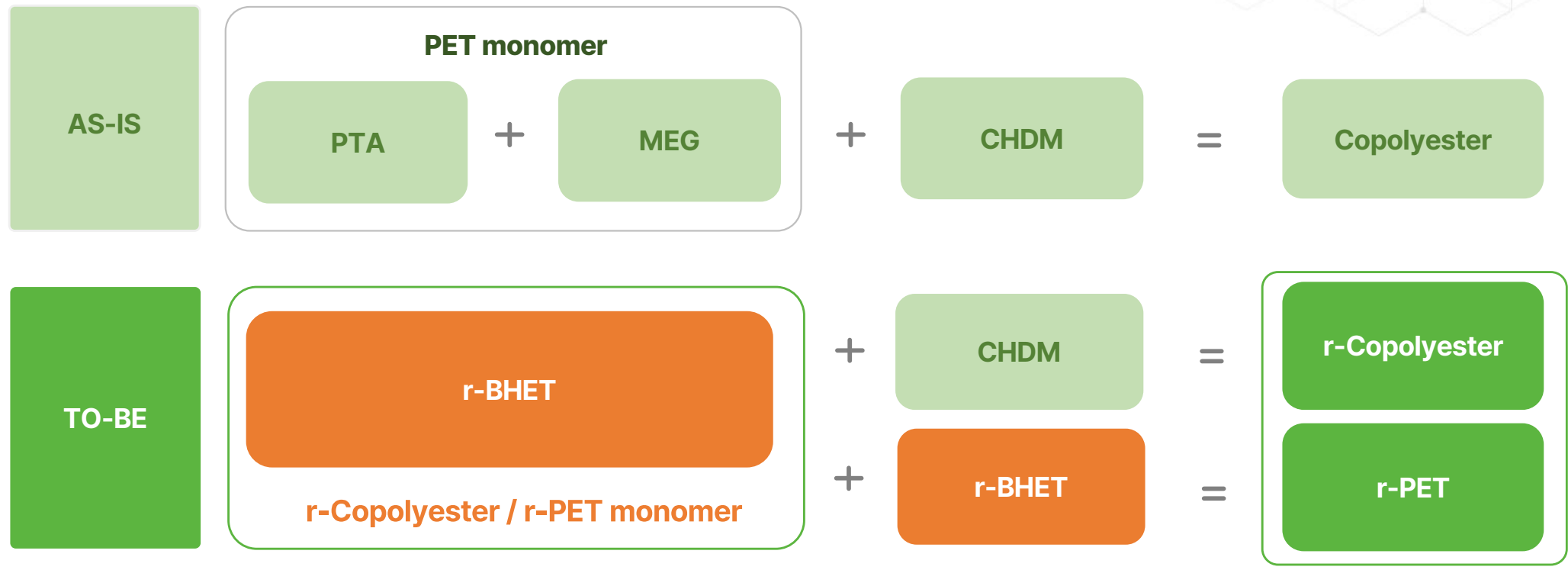


"Internalization of core raw-materials"



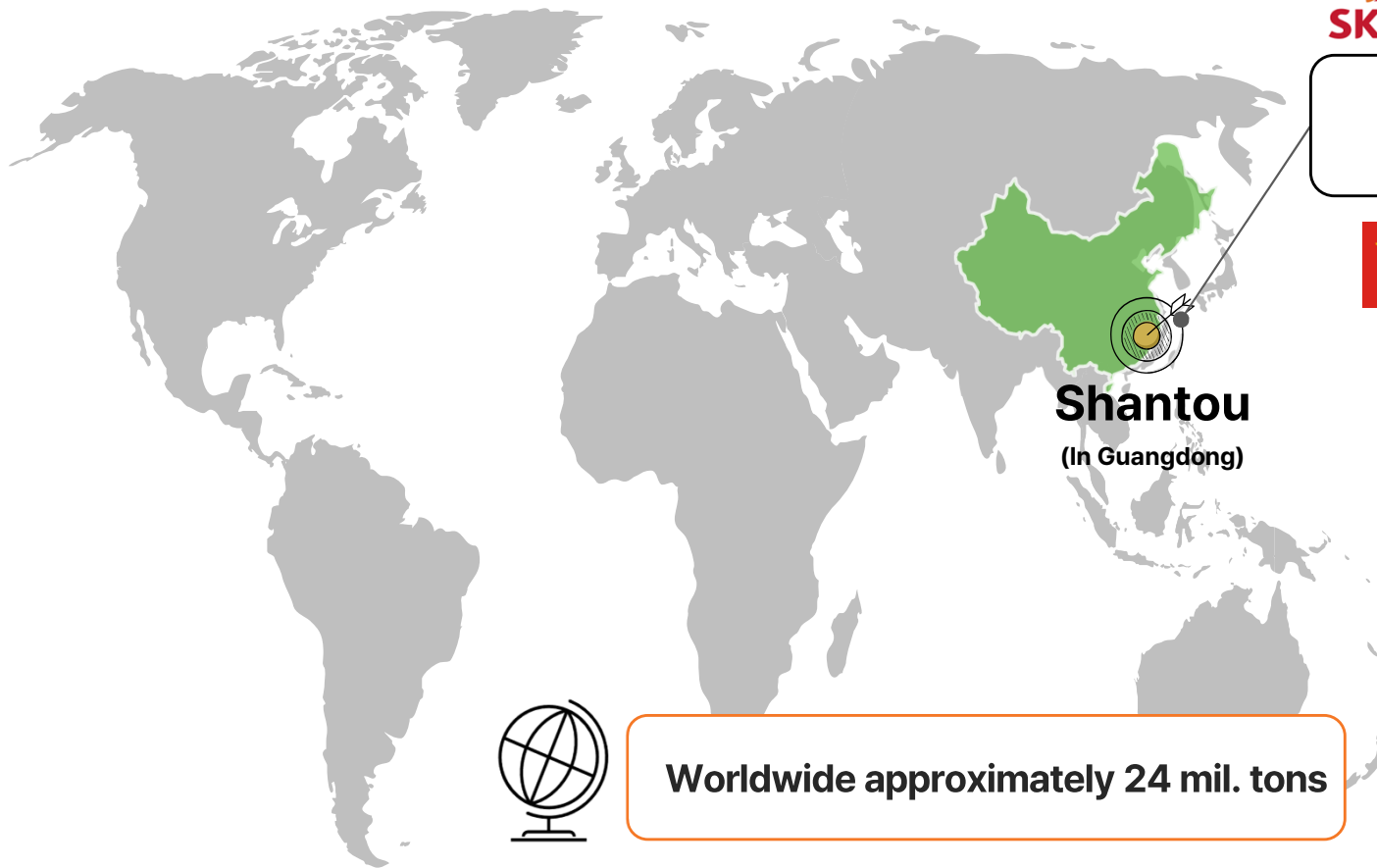
Competency (2) : Expansion of biz. criteria

Secured potentially high-growth recycling value chain in which consisted of
①Specialty(r-Copolyester) and ②Mass market product(r-PET)



Competency (3) : Securing Feedstock in advance

Securing sustainability of recycle business by stable w-PET supply

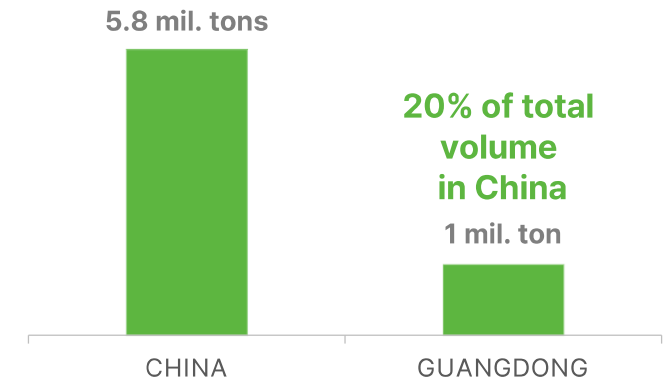


SK chemicals (Shantou) co., ltd.

Securing feedstock preemptively by taking advantage of location



"Waste PET volume in China"



Worldwide approximately 24 mil. tons

* Source : W.M. MEG Supply/Demand_2020, W.M. Global Bale Flake RPET Capacity_2023 May

Strengthening recycle biz. competency (1)

Working on the 'Basic but Important Tasks' to strengthen biz. sustainability

Key Activities

Expectations

Certification / Regulation

- Acquisition of GRS and ISCC Plus certification
- Conducting tasks to respond regulations by major regions

- Securing a core-marketing competitiveness
- Constructing entry barriers against competitors

SK Shantou

- Processing PMI by adapting SK process after acquisition of Shuye's facilities & technology ('23.3)
- On-going Business development process with LOVERE, waste collecting/sorting company based in China

- Enhancing cost competitiveness and optimizing processes through continuous PMI process
- Stabilization of SK Shantou Feedstock supply and achieving Economic Value through Recycle business

Customers

- Securing domestic/overseas clients
- Validation with major brand-owners on the progress

- Strengthening Global networks by securing new customers in various markets

Strengthening key factors through analysis & advancement

Raw-materials

Cost-leadership

Advanced strategy

Financial outcome



"Sustainability & Competitiveness"

Strengthening recycle biz. competency (2)

Established the foundation of Closed Loop system by signing MOU with waste collection company

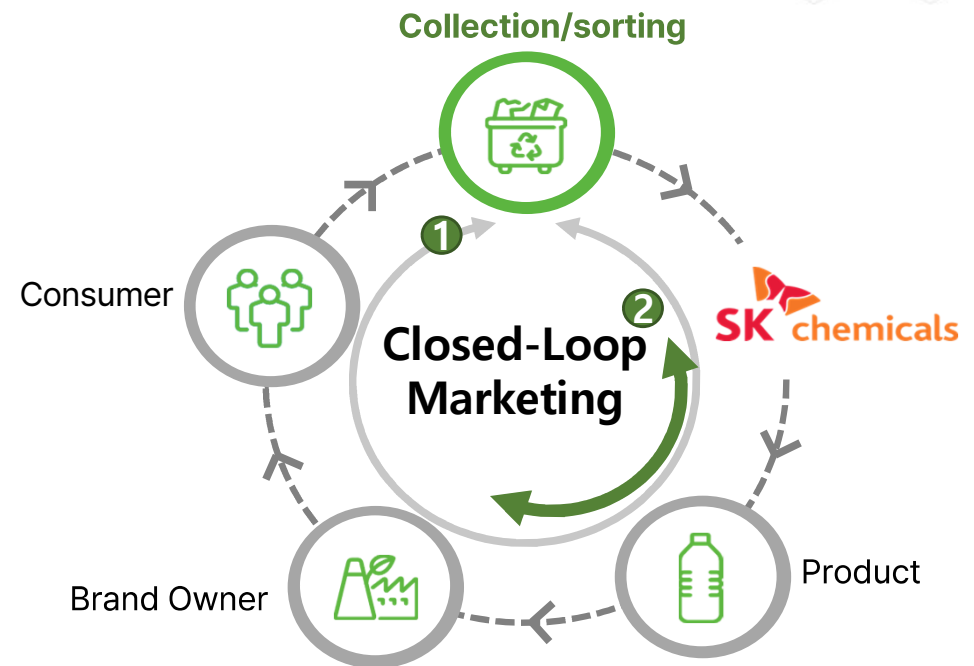
LOVERE Overview

- ✓ A Subsidiary of ATRenew,* an electronic device collection and recycling company listed on New York Stock Exchange
- ✓ Currently collecting approximately 420K tons of household waste in 37 cities in China
- ✓ Implementing self-developing AI-based sorting automation device and digital service-based reward program

MOU Overview

- ✓ When : Sep. 18, 2023
- ✓ Why : Securing waste plastic collection / sorting system for establishing Recycle Plastic Closed Loop
- ✓ Expectations : Accelerating the establishment of Closed Loop by expanding the value chain to plastic collection and sorting

Expectations



"Establishment of SK Chemicals' own closed-loop recycling system, laying the foundation for future customized circular model business for various brand-owners"

2

Business Status and Strategies

2-1. Overview



Vision



Providing eco-friendly materials and total healthcare solution

Global Leading Company



**The Green Chemical
Company**

Leading resource recycling
ecosystem



**Total Life Science
Company**

Innovating human lives with
technologies

History

Secured business identity through restructuring chemical business and SK bioscience IPO



Green Materials

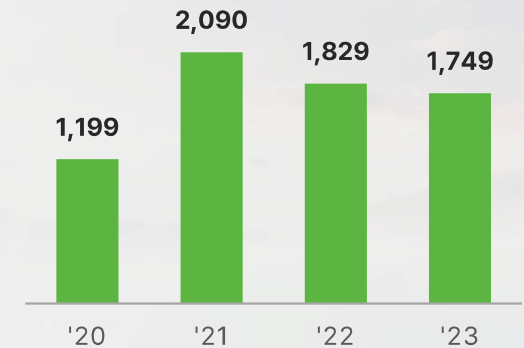
- Bio energy business sold
- Drive green portfolio centered growth
- Initiate commercialization of world's 1st chemical recycling technology-based r-Copolyester (Jul 2021)
: securing stable raw material, and inhouse production infrastructure and technical skill
- New copolyester plant (#4) commercial production started
- Limited business (PPS business) sold
- Spin-off Multi Utility business
- Regularize chemical recycle business
- Complete bio-materials technology development and start operating commercialized plant (Mar 2022)
- SK-Shantou establishment Mar.'23

Life Science

- Covid-19 vaccine CMO/CDMO contracts
- SK bioscience listing on KOSPI
- Covid-19 vaccine phase 3 trial commenced
- Expanding new pipelines utilizing AI/DI technologies
- Fortifying existing portfolio and procuring new technologies
- Acquired SKY Covione approval (domestic/global)
- Supplying updated Novavax COVID vaccine

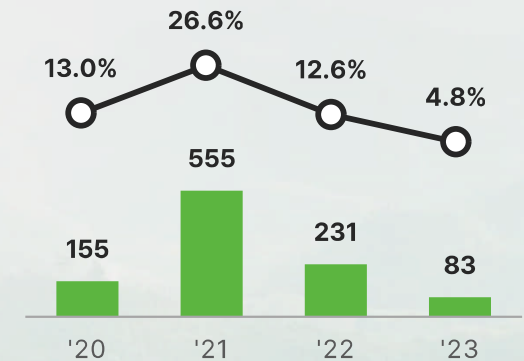
Revenue

(Unit : KRW Bn)



OP & OPM

(Unit : KRW Bn)



* Consolidated, excluding discontinued businesses

* Reflecting re-written financial statements for the past 2 years from the completion of the sale of business
 - PPS business sale completion: 31st Dec 2021
 - Bioenergy business sale completion: 29th May 2020

Strategies

Jump-up through each unit's organic/inorganic growth strategies

Green Materials(Eco-transition)

1 Transition to Recycled Copolyester

- Focusing on globalization through securing production bases, strengthening network etc.
- Strengthening Recycle portfolio

2 Expand into new Bio-material business

- Development and commercialization of corn based PO3G technology

3 Drive 'Net Zero' with green energy usages

- Value creation with LNG fuel transition
- Drive carbon reduction in future by establishing hydrogen economy

1 Expansion of promising future green material business

- Expand into promising future green material business

Organic Growth

Inorganic Growth

Life Science

1 Formation of R&D platform utilizing open innovation and AI

- Development of new drug through open innovation
- Formation of new drug search platform utilizing AI/DI
- Introduction of external projects and venture investments

2 Partnership

- Collaborating with major pharmaceutical companies to develop new products

3 Expansion into the vaccine business and related fields

- Global Top-tier level vaccine platform
- Possession of world-class vaccine production facilities
- Fortification of international cooperation for global vaccine distribution expansion

1 Search for business opportunities in new bio fields

- Search for new business opportunities such as genetic editing/ genetic therapy, Proteolysis targeting chimera, cell therapeutics, etc.

A photograph of a large industrial facility, possibly a refinery or chemical plant, at night. The structure is illuminated by numerous bright lights, creating a complex network of steel beams, pipes, and towers. The sky is dark blue. In the upper right corner, there is a large, stylized green graphic element consisting of several overlapping, curved lines that resemble a stylized 'L' or a similar abstract shape.

2

Business Status and Strategies

2-2. Green Materials

Global Market Outlook

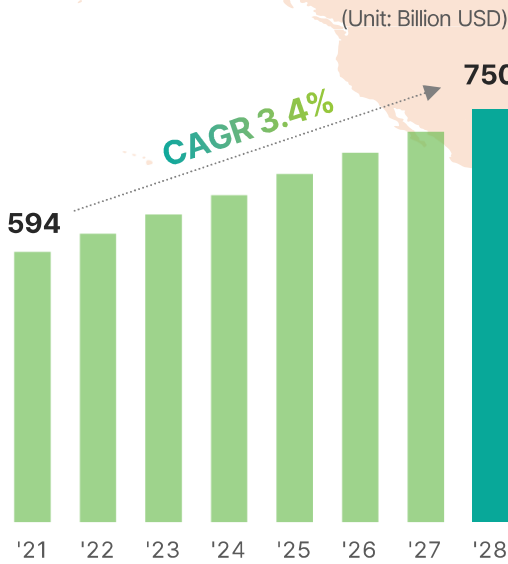
The circular recycling market is expected to show rapid growth, while traditional plastic market shows gradual growth

Global Plastic Market
 Market size in '28
 Forecasted to USD 750 Billion

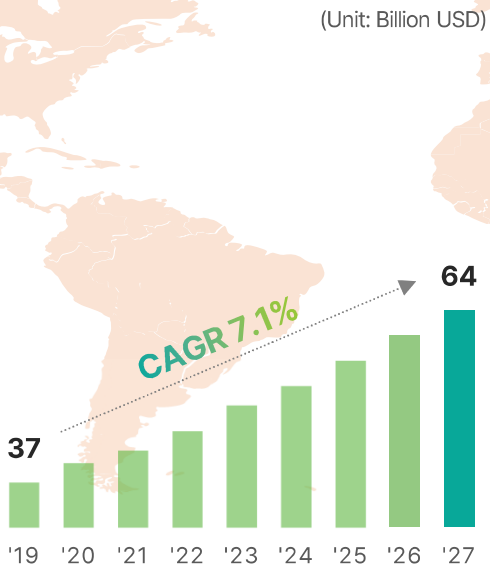
Global Plastic Recycle Market
 Market size in '27
 Forecasted to USD 64 Billion

Global CR-PET Market
 Market size in '30
 Forecasted to 5 mil. tons

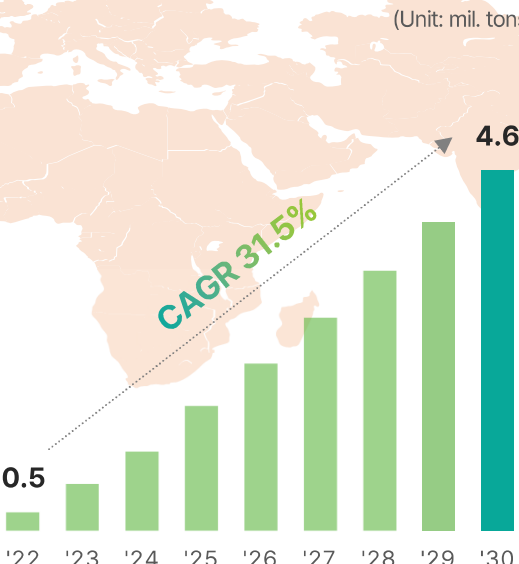
r-Copolyester Market
 Market size in '30
 Forecasted to 180k. tons



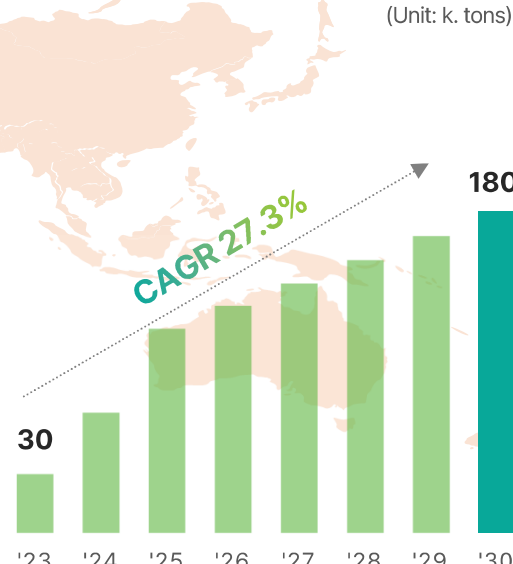
(Sources: Global plastic market size 2016-2028 Published by Ian Tiseo, 2021)



(Sources: "Transition to a Circular Economy and Response Strategy Published by PwC Korea, 2022)



(Sources: Wood Mackenzie, HIS Markit, Expert Interview)



(Sources: Wood Mackenzie, HIS Markit, Expert Interview)

Copolyester Business

Expansion into the range of applications with Copolyester through continuous product development

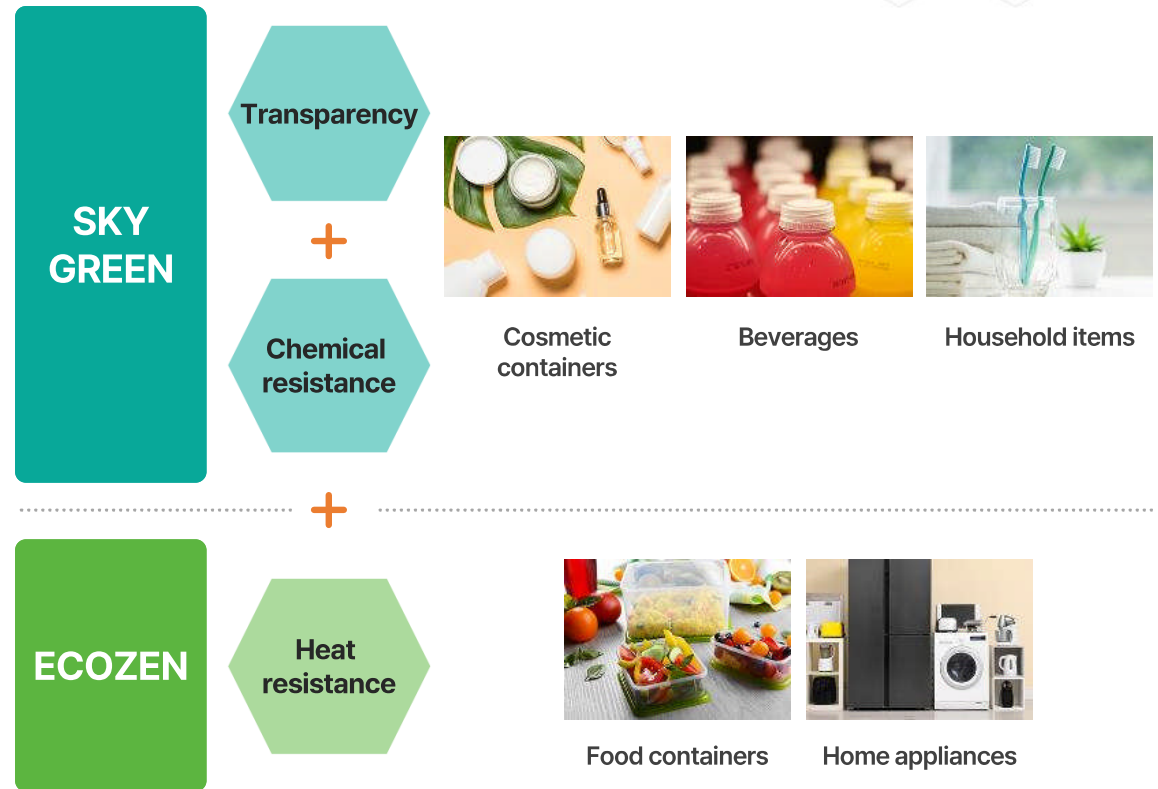
Copolyester

Excellent transparency, chemical resistance, and superior processibility

High performance PETG (BPA Free)

High functional resin





that can replace PC, PMMA, PVC



Global Regulations and Market Trends

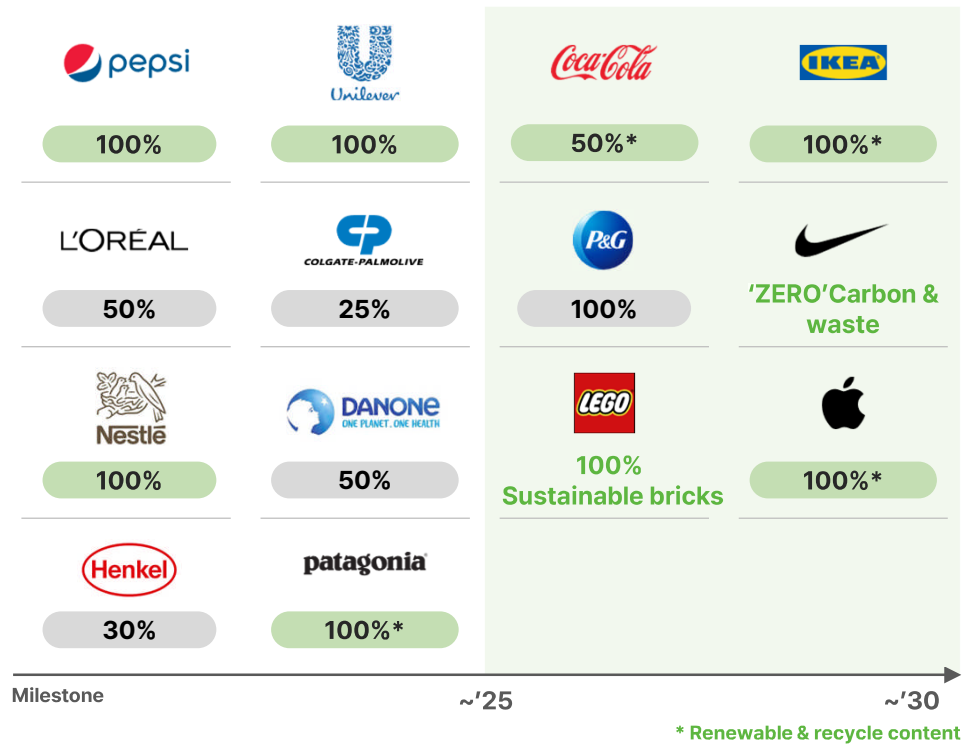
Demands for recycled plastic products are expected to hike explosively as global regulation gets stricter

Global Regulations

- | | |
|---|--|
| <p>Europe </p> | <ul style="list-style-type: none"> Mandated recyclable plastic usage in plastic packaging : 55% by 2022, 100% by 2030
(Sources: European Commission, COM(2018)) Mandated usage of Recycled PET (r-PET) for PET beverage bottles : 25% by 2025, 30% by 2030
(Sources: European Parliament, Single-Use Plastics Directive) |
| <p>US </p> | <ul style="list-style-type: none"> California : Mandates recycled content in PET bottles - 15% by 2022, 50% by 2030 Washington State: Mandates recycled content for plastic containers across food and household product - 15% by 2022, 25% by 2025, 50% by 2030 |
| <p>Japan </p> | <ul style="list-style-type: none"> Establishing goals for recycling rates of plastic containers : 60% by 2030, 100% by 2035 |
| <p>Korea </p> | <ul style="list-style-type: none"> Enlarging 30% of the usage of recycled plastic materials by 2030 - Targeting to reduce 20% of waste plastic by '25 |

Brand owners' Commitments

Announces from Brand owners :
"Transition to 50%~100% recyclable materials by 2030"

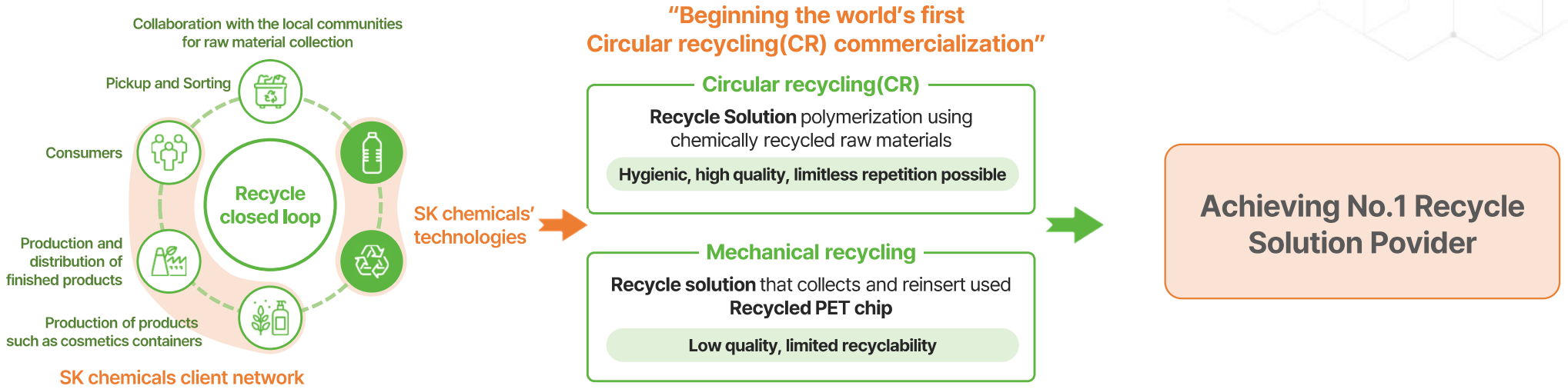


(Sources: Branded-audit report (2022)& Homepages of each company)

Recycled Copolyester

SK chemicals' sustainable packaging solutions

Establishment of circular economy through recycle closed loop



Recycled Copolyester production process

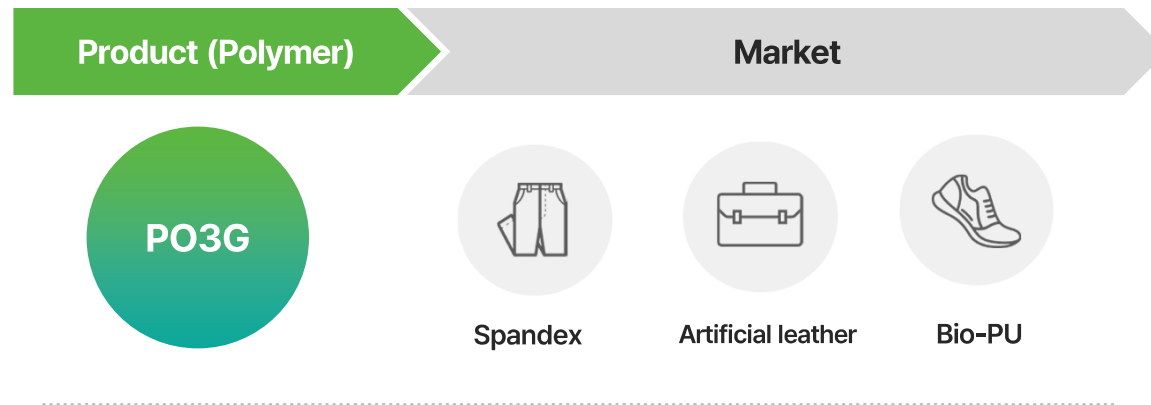


Strengths

- 1 Stable raw material secured through self production of r-BHET and CHDM
- 2 Demonstrate Recycle technology by being the world's 1st to commercialize r-Copolyester
- 3 Validation with major brand-owners on the progress

Bio-materials Business

Expansion into bio-material business such as PO3G



- Investment term** Feb 2020 ~ Feb 2022
- Capacity** 5,000 tons annually
- Features** High elastic recovery, Abrasion resistance
- Applications** Elastomer, 3D Printing, Spandex, etc.
- Progress** Commercial plant started (Mar 2022)

PO3G eco friendly features

Up to 30% reduction of greenhouse emissions compared to existing Polytetramethylene Ether Glycol (PTMEG)

Material	Total Non-Renewable Energy (Fossil + Nuclear) Relative to fossil P TIMEG industry average (%)
PTMEG	100%
ECOTRION	~70% (20~30% reduction)

Reference : DuPont™ Cerenol® -A New Family of Sustainable and Environmentally Friendly Materials, 2008, Washington DC



2

Business Status and Strategies

2-3. Life Science

Life Science - Pharma

Main Products

Ginexin-F



No.1 Ginkgo extract circulatory enhancer

Joins



Korea's no.1 herbal medicinal products for arthritis

Trast



World no.1 patch formulation for arthritis

Mvix S



World's 1st film type impotency treatment

Rivastigmine Patch



Patch type Alzheimer treatment

Strengths and Growth Strategy

Top class marketing and partnerships in Korea



New drug development strategic cooperation

- Open Innovation
- CMO · CDMO



Establishment of a new drug search platform utilizing AI

- Expand new pipelines and minimization of failure costs
- Secure analysis capacity level on par with established AI companies



Introduction of external projects and venture investments

- Build high-prospect venture capital investment pipelines, and search for new business fields
- Generate investment profits and develop introduction pipelines

Life Science - SK bioscience

		Pre-clinical	Phase 1	Phase 2	Phase 3	Registration
PCV 21	sanofi				✓ Global	
RSV		✓				
Recombinant Zoster		✓				
HPV 10	Sunflower	✓				
Cancer/Obesity Vaccine, etc.		✓				
Value-Up Flu Vaccine		✓				
PCV 13						✓
SKYCellflu(Trivalent)						✓
SKYCellflu(Quadrivalent)						✓
SKYZoster						✓
SKYVaricella						✓
SKYTyphoid(TCV)	International Vaccine Institute BILL & MELINDA GATES foundation					✓
HPV 4	Sunflower			✓ Phase 1/2		BLA approval for Export
Rotavirus Pentavalent			✓			
JEV	CEPI	✓				
Hep A, etc.		✓				
SKYCovione (COVID-19)	CEPI BILL & MELINDA GATES foundation					✓
Pan-Sarbeco (Sarbecovirus)	CEPI Protein Design UNIVERSITY OF NAMBOR	✓				Domestic : BLA Approval Overseas : MHRA/MA/WHO EUL Approval
Lassa Fever	CEPI	✓				
Nasal Spray	Protein Design UNIVERSITY OF NAMBOR BILL & MELINDA GATES foundation iavi	✓				

