



Global Innovative Partner of Vaccine and Biotech

CEO Message



CEO & President of SK bioscience
Ahn Jaeyong

“
From prevention to cure,
SK bioscience is dedicated to shaping
a healthier future for humanity
”

Having overcome the global threat of the pandemic as ‘One Team,’ we reaffirmed the critical importance of partnerships in establishing vaccine ecosystems and global manufacturing hubs.

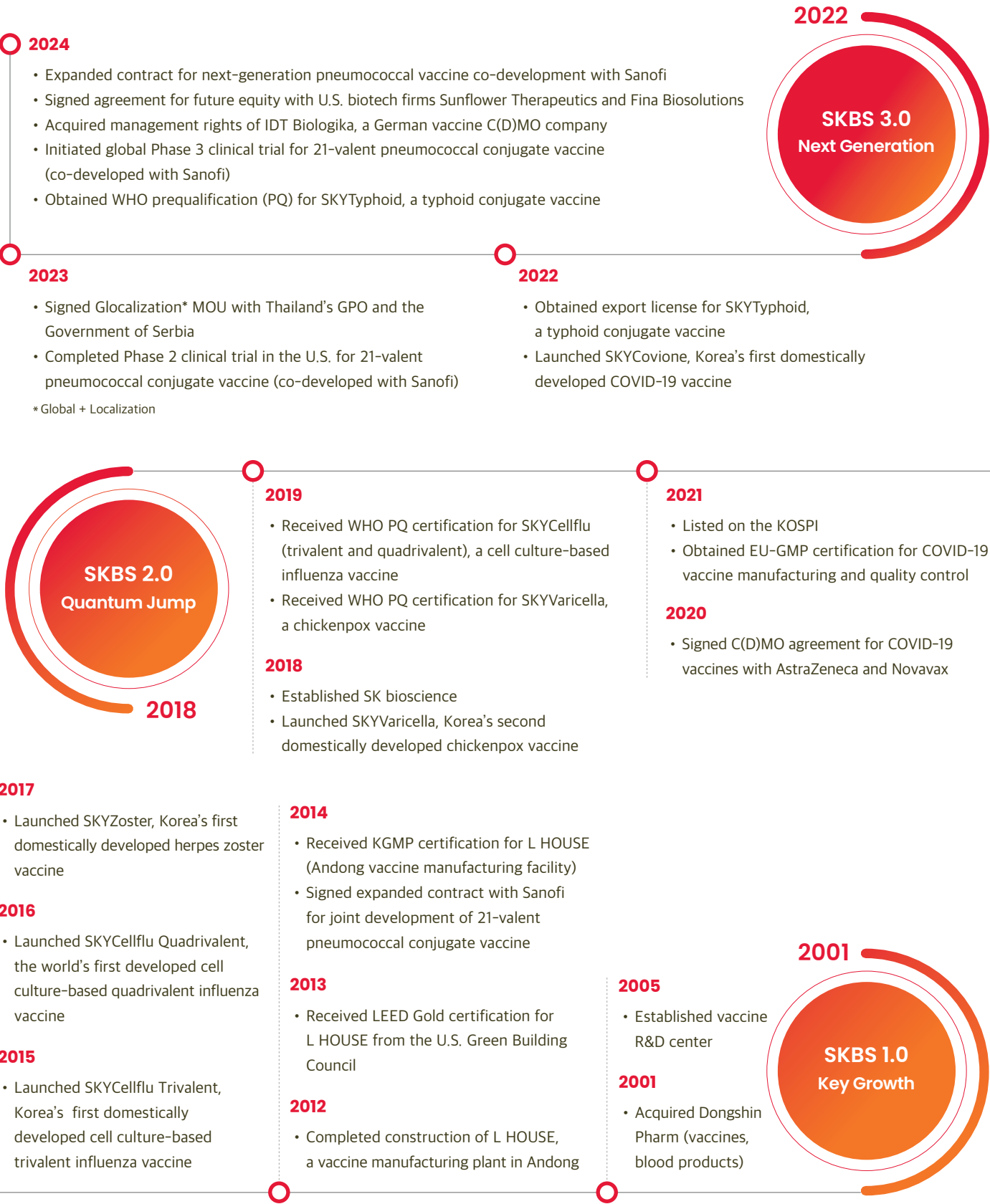
SK bioscience has led Korea’s vaccine industry with advanced R&D capabilities and state-of-the-art manufacturing facilities. The company has also earned global recognition for both the self development and contract manufacturing of its COVID-19 vaccine.

SK bioscience’s global network—spanning international organizations, research institutes, and companies in the vaccine sector—serves as a driving force for sustainable growth and a key enabler of both economic value (EV) and social value (SV).

SK bioscience is expanding its proprietary vaccine portfolio and enhancing its R&D and manufacturing infrastructure, while actively entering new areas of biotechnology and securing global production hubs—all in pursuit of safeguarding human health.

Driven by the passion of every employee, SK bioscience remains committed to spreading hope across the globe—continuing our efforts each and every day.

History



At a Glance



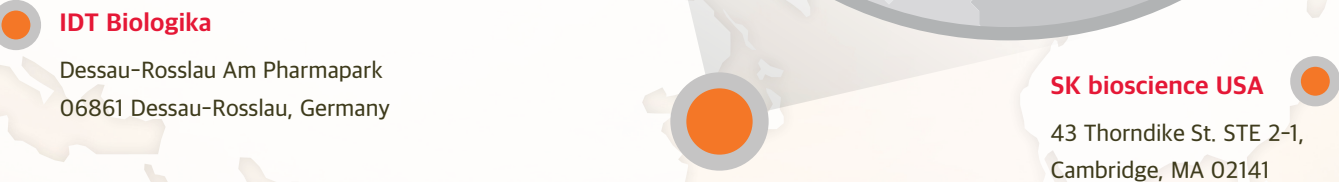
Employees (As of Dec. 2024)

929



Revenue (As of Dec. 2024)

KRW 267.5 billion



Headquarters

310, Pangyo-ro, Bundang-gu, Seongnam,
Gyeonggi-do, Korea

Andong L HOUSE
(Vaccine Manufacturing Plant)

150, Saneopdanji-gil, Pungsan-eup,
Andong, Gyeongsangbuk-do, Korea

Pangyo R&D Center

332, Pangyo-ro, Bundang-gu, Seongnam,
Gyeonggi-do, Korea

Songdo Global R&PD Center

38, Yeongudanji-ro, Yeonsu-gu,
Incheon, Korea

(To open in Dec. 2025)

SK bioscience’s Growth Strategy 3.0

MISSION

We Promote Human Health, from Prevention to Cure

VISION

Global Innovative Partner of Vaccine and Biotech

Vaccine Portfolio Expansion

- Initiation of phase 1 clinical trial of enhanced influenza vaccine in 2025
- Initiation of clinical trial of HPV9+ in 2026
- Initiation of phases 1/2 clinical trial of a pan-sarbecovirus vaccine within 2025
- Initiation of phases 1/2 clinical trial of an mRNA Japanese encephalitis vaccine
- Development of a rotavirus vaccine in collaboration with the CDC

R&D /Mfg Infra Expansion

- Establishment of Songdo R&PD Center
- Completion of G2+ to establish commercial-scale production infrastructure for pneumococcal conjugate vaccines (PCV)
- AI-driven process optimization at Andong L HOUSE to enhance yield and achieve cGMP levels

SKYShield

- Localized development and production of vaccines through public-private partnerships in Thailand

Next Pandemic Preparedness

- 2 Track Strategy
 - Development capacity: Acquisition of new platforms for pandemic preparedness, such as mRNA technology
 - Manufacturing capacity: Enhancement of manufacturing capabilities through IDT Biologika and Songdo R&PD Center

New Bio Biz Expansion

- Expansion of CGT (Cell and Gene Therapy) business through IDT Biologika
- Setting of expansion targets based on mRNA technology as a platform

Global Partnership / M&A, JV / Management Infra

Research and Development



Pangyo R&D Center

Dedicated to the research and development of vaccines, Pangyo R&D Center is equipped with state-of-the-art facilities and staffed by industry-leading R&D personnel, making it one of the largest in Korea.



R&D personnel (As of Dec. 2024)

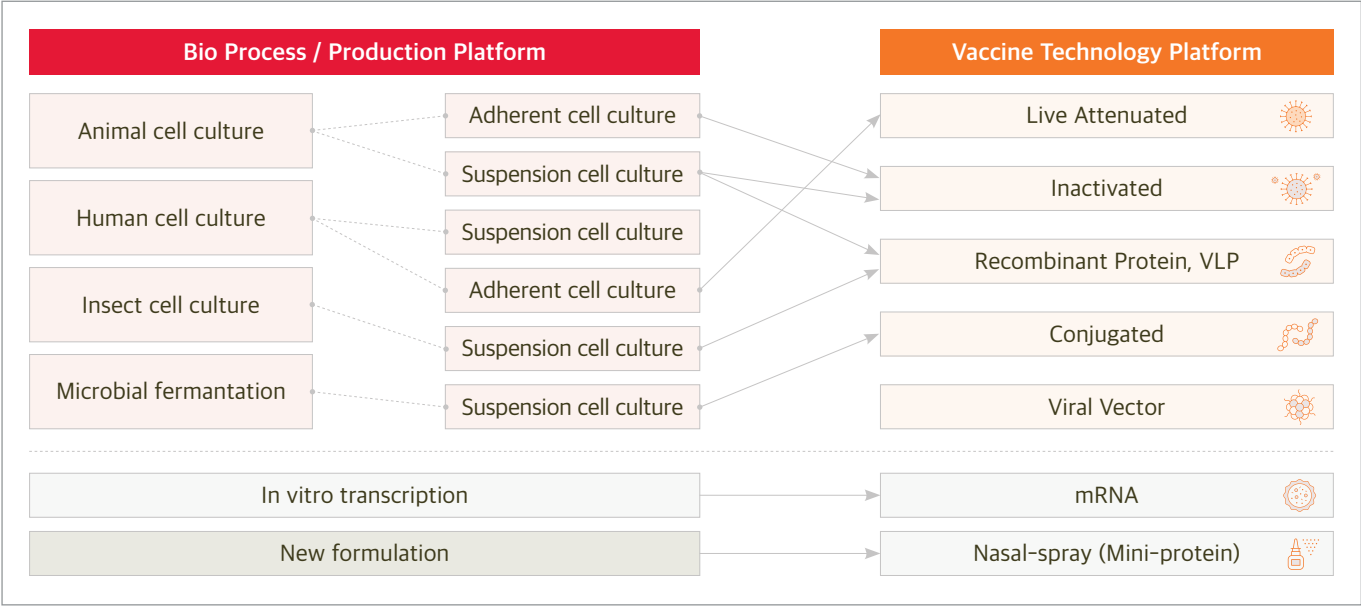
315



R&D investment

KRW 106.2B

Platform Technologies



Portfolio

SOCIAL VALUE		ECONOMIC VALUE		
Funding public health programs	External partnership (GF grantees)	In house program / External partnership (private sectors)	CMO/CDMO	CGT
<ul style="list-style-type: none">TCV¹ with IVI² (BMGF)NRRV³ with PATH (BMGF)COVID-19 vaccine (SKYCovione) (BMGF, CEPI)Pan-sarbecovirus vaccine (CEPI/BMGF)Minibinder intranasal spray for COVID-19 (BMGF)mRNA vaccines for COVID-19 (BMGF)mRNA vaccines for Japanese encephalitis vaccine and Lassa (CEPI)Hepatitis A vaccine using small foot mfg with Univercells (RIGHT)iNTS6 with IVI (Wellcome Trust)	<ul style="list-style-type: none">Low-cost HPV vaccine (small foot mfg) with SunflowerAdjuvant with VFI⁷	<ul style="list-style-type: none">Cell culture influenza vaccine (SKYCellflu)Live attenuated Varicella (SKYVaricella) / Zoster vaccine (SKYZoster)Multi-valent⁸ PCV with Sanofi Pasteur13 valent / 12 valent* PCVInsect cell-based HPV5 valent oral rotavirus vaccineRSV⁹ vaccineCancer Immunotherapies, Obesity Vaccines, etc.	<ul style="list-style-type: none">MSD next generation Ebola vaccine¹⁰Novavax COVID-19 vaccineAstraZeneca COVID-19 vaccineDengue vaccine	

1) TCV: Typhoid Conjugate Vaccine, 2) IVI: International Vaccine Institute, 3) NRRV: Non-Replicating Rotavirus Vaccine, 4) PIII: Phase III, 5) PC: Pre-clinical, 6) iNTS: Invasive Non-Typhoidal Salmonella, 7) VFI: Vaccine Formulation Institute, 8) Valent: number of bacteria types the vaccine is applicable for, 9) RSV: Respiratory Syncytial Virus, 10) MSA signed in May 2023 and development work for the next generation Ebola vaccine is being performed at Hileman Lab
* 12 valent PCV: Phase II study funded by the foundation, Pending after a phase II study

Songdo Global R&PD Center

(To be completed in Dec. 2025)

State-of-the-art R&PD center covering the entire R&D process from research to commercial-scale production



Pilot Plant

- A small-scale pilot facility built to test new processes or products prior to full-scale implementation
- Designed to cGMP standards for use in new vaccine development and CDMO projects






R&D Center

- R&D of new mRNA technology
- Development of CDMO processes using microbes and animal cells



Pipeline

 Premium	 Basic vaccine	 Coronavirus/pandemic response	Basic research/ Pre-clinical trial	Clinical Trial Phase 1	Clinical Trial Phase 2	Clinical Trial Phase 3	Government approval
21-valent pneumococcal protein conjugate vaccine	Sanofi					✓	Global
Next-generation pneumococcal conjugate vaccine	Sanofi					✓	
RSV vaccine						✓	
Recombinant zoster vaccine						✓	
10-valent HPV vaccine	Sunflower					✓	
Enhanced influenza vaccine						✓	
13-valent pneumococcal protein conjugate vaccine							✓
Quadrivalent cell-cultured influenza vaccine (SKYCellflu quadrivalent)							✓*
Trivalent cell-cultured influenza vaccine (SKYCellflu trivalent)							✓*
Zoster vaccine (SKYZoster)							✓
Varicella vaccine (SKYVaricella)							✓*
Typhoid protein conjugate vaccine (SKYTyphoid [export])	IVI ¹⁾	BMGF ²⁾					✓*
4-valent HPV vaccine	Sunflower					✓	Clinical Trial Phases 1 and 2
Rotavirus vaccine						✓	Clinical Trial Phases 1 and 2
Japanese encephalitis vaccine (mRNA)	CEPI					✓	Clinical Trial Phases 1 and 2
Vaccines for Hepatitis A, etc.						✓	
COVID-19 vaccine (SKYCovione)	CEPI	BMGF					✓
Pan-sarbecovirus vaccine	CEPI	IPD ³⁾		✓			
Lassa fever vaccine	CEPI			✓			
Nasal Spray	IPD	BMGF	IAVI ⁴⁾	✓			

1) International Vaccine Institute 2) Bill & Melinda Gates Foundation 3) Institute for Protein Design 4) International AIDS Vaccine Initiative

*Prequalified by the WHO PQ

Product

<p>SKYCellflu quadrivalent</p> <p>World's first developed cell-cultured quadrivalent influenza vaccine</p> <p>WHO PQ Certification</p> 	<p>Active Ingredient</p> <p>Cell-cultured surface antigen influenza vaccine Purified inactivated influenza virus surface antigen (Two Type A antigens, two Type B antigens)</p>
	<p>Indications</p> <p>For the prevention of influenza caused by influenza A and B viruses contained in the vaccine in individuals aged 6 months and older, including children, adolescents, and adults</p>
<p>SKYCellflu trivalent</p> <p>Korea's first domestically developed cell-cultured trivalent influenza vaccine</p> <p>WHO PQ Certification</p> 	<p>Active Ingredient</p> <p>Cell-cultured surface antigen influenza vaccine Purified inactivated influenza virus surface antigen (Two Type A antigens, one Type B antigen)</p>
	<p>Indications</p> <p>For the prevention of influenza caused by influenza A and B viruses contained in the vaccine in individuals aged 6 months and older, including children, adolescents, and adults</p>
<p>SKYZoster</p> <p>Korea's first domestically developed herpes zoster vaccine</p> 	<p>Active Ingredient</p> <p>Live zoster virus vaccine Live attenuated herpes zoster virus (Oka/SK)</p>
	<p>Indications</p> <p>Prevention of herpes zoster in individuals aged 50 years and older</p>
<p>SKYVaricella</p> <p>Korea's second domestically developed varicella vaccine</p> <p>WHO PQ Certification</p> 	<p>Active Ingredient</p> <p>Live varicella virus vaccine Live attenuated varicella-zoster virus (Oka/SK)</p>
	<p>Indications</p> <p>For the prevention of varicella (chickenpox) in children aged 12 months to 12 years</p>
<p>SKYTyphoid (Export)</p> <p>Korea's first domestically developed typhoid protein conjugate vaccine</p> <p>WHO PQ Certification</p> 	<p>Active Ingredient</p> <p>Typhoid Vi Polysaccharide Conjugated to Diphtheria Toxoid vaccine Typhoid Vi Polysaccharide Conjugated to Diphtheria Toxoid</p>
	<p>Indications</p> <p>Active immunization for the prevention of typhoid fever caused by Salmonella Typhi in age of ≥ 6 months and ≤ 45 years</p>
<p>SKYCovion</p> <p>Korea's first domestically developed COVID-19 vaccine</p> 	<p>Active Ingredient</p> <p>SARS-CoV-2 surface antigen vaccine (genetically recombined) SARS-CoV-2 spike protein RBD antigen (genetically recombined) (Host 1: CHO- K1 (HD-BIOP3), Vector 1: M-2560, Host 2: E.coli (BL21), Vector 2: pET296(+))</p>
	<p>Indications</p> <p>For the prevention of COVID-19 caused by the SARS-CoV-2 virus in individuals aged 18 years and older</p>

Manufacturing



L HOUSE

A world-class vaccine plant producing a wide catalog of vaccines

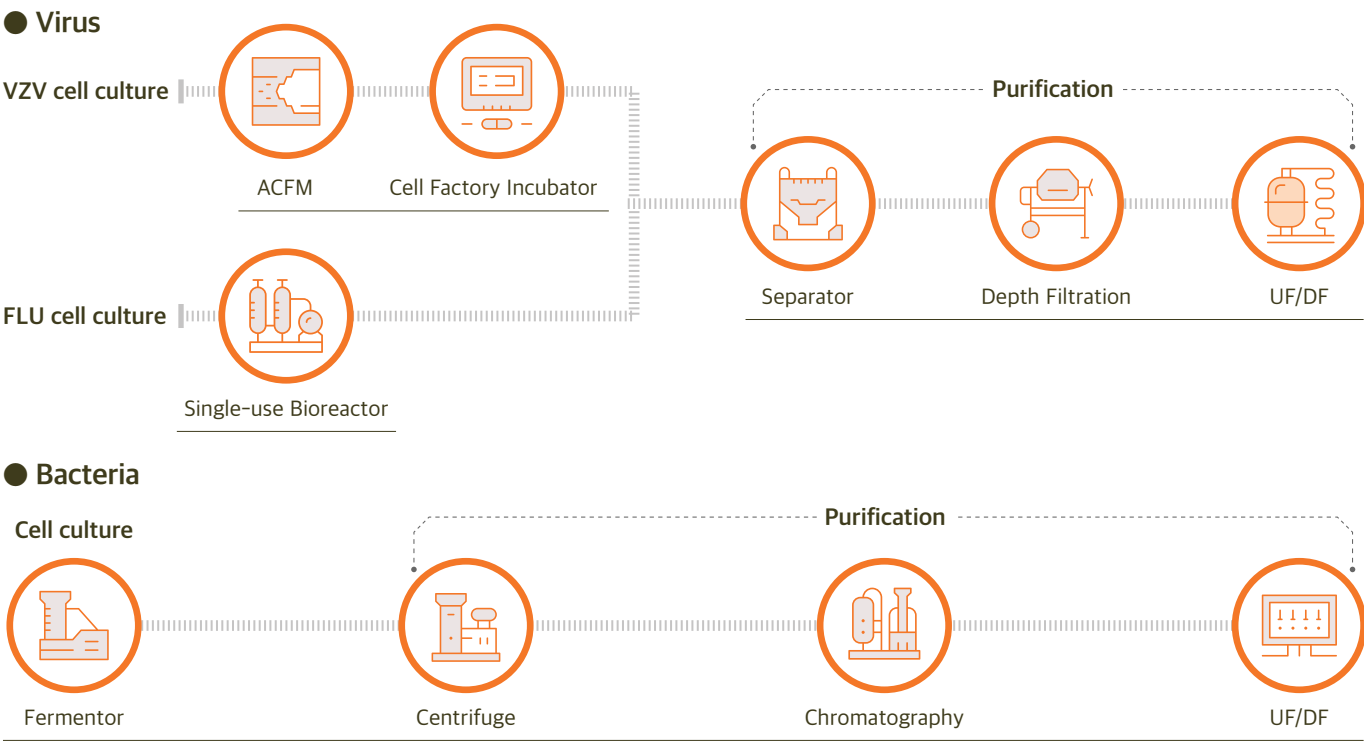
AREA	PRODUCTION	ANIMAL LABS	OFFICE
62,626 m ² + 99,130 m ² (Industrial Complex 2)	28,210 m ² + 4,200m ² (G2+ expansion underway) <ul style="list-style-type: none">• Filling (pre-filled syringes, vials, freeze-dried products)• DS (9 suites for bacterial and viral vaccines)• Packaging, QA/QC, logistics, facilities	1,573 m ²	4,183 m ²

GMP CERTIFICATIONS

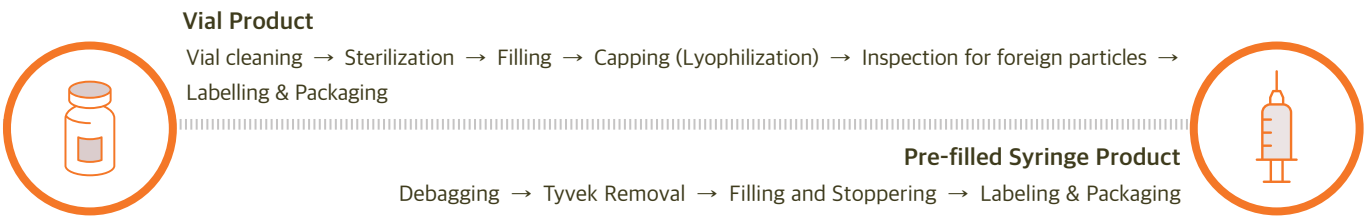
Technology and Competitiveness

SINGLE USE SYSTEM <ul style="list-style-type: none">• Shorter design stage• Faster process development and optimum scale-up• Reduced initial cost• Minimized inspection of cleaning and sterilization (Reduced spending of time and effort; no need to halt operations)	FLEXIBILITY <ul style="list-style-type: none">• Experience with developing various platforms• Flexibility in commercial production• Modular system (Independent operation of individual suites possible)	FUTURE EXTENSION PLAN <ul style="list-style-type: none">• Wide range of platforms and improved quality assurance• Dedicated extension area designed for rapid capacity expansion to meet future production demand
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Drug Substance Manufacturing



Drug Product Manufacturing





IDT Biologika

German company, ranked among the world's top 10 vaccine CDMOs, acquired by SK bioscience in October 2024

FOUNDED
1921

LOCATION

- Dessau-Roßlau, Germany (HQ & End-to-end manufacturing facility)
- Magdeburg, Germany (Process development center)

TOTAL AREA
1,360,000 m²

KEY FINANCIALS (€269m)

Vaccines
57%

CGT
8%

DP F&F
32%

Other
3%

Facts and Figures

WORLDWIDE SUPPLY

for the global biopharmaceutical industry and governments

MORE THAN 100 YEARS

of expertise in development and manufacturing vaccines

MULTIPLE CDMO LEADERSHIP AWARDS

won over the past 10 years

A TRUSTED PARTNER

designated partner for pandemic vaccines by the German government

EMPLOYEES

1,600
(As of Dec. 2024)

COMPLIANCE-PROVEN QUALITY

validated globally
(EMA, FDA, ANVISA, MHRA, MFDS, etc.)

A Trusted Partner in Shaping a Healthier World

VACCINES

Leveraging decades of expertise, we specialize in creating innovative solutions to combat infectious diseases

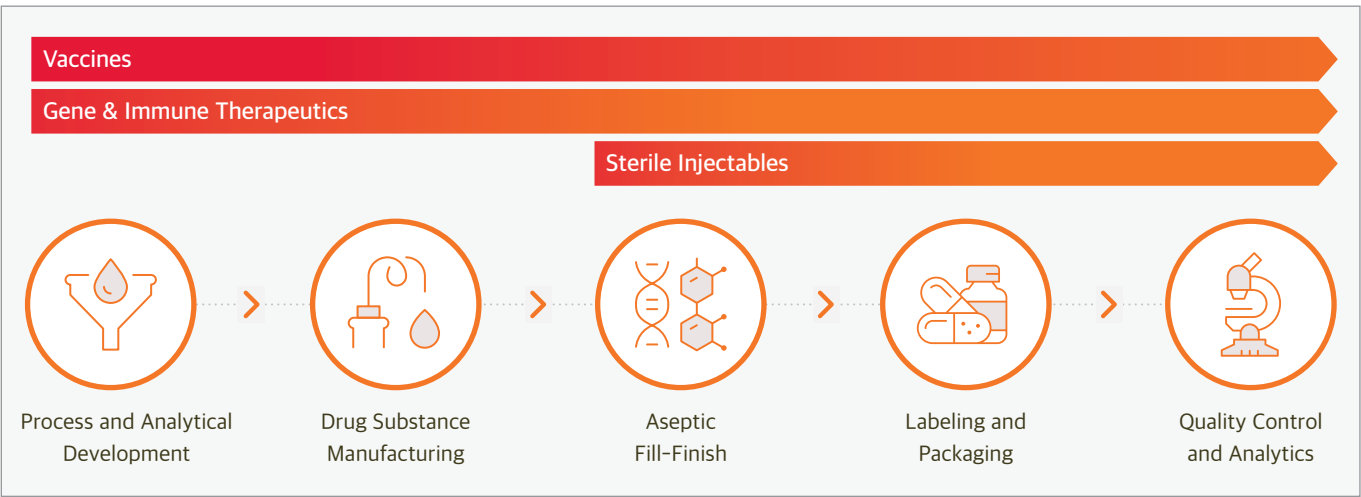
GENE & IMMUNE THERAPEUTICS

The sole manufacturer of the first commercial oncolytic virus product approved by FDA & EMA

STERILE FILL AND FINISH

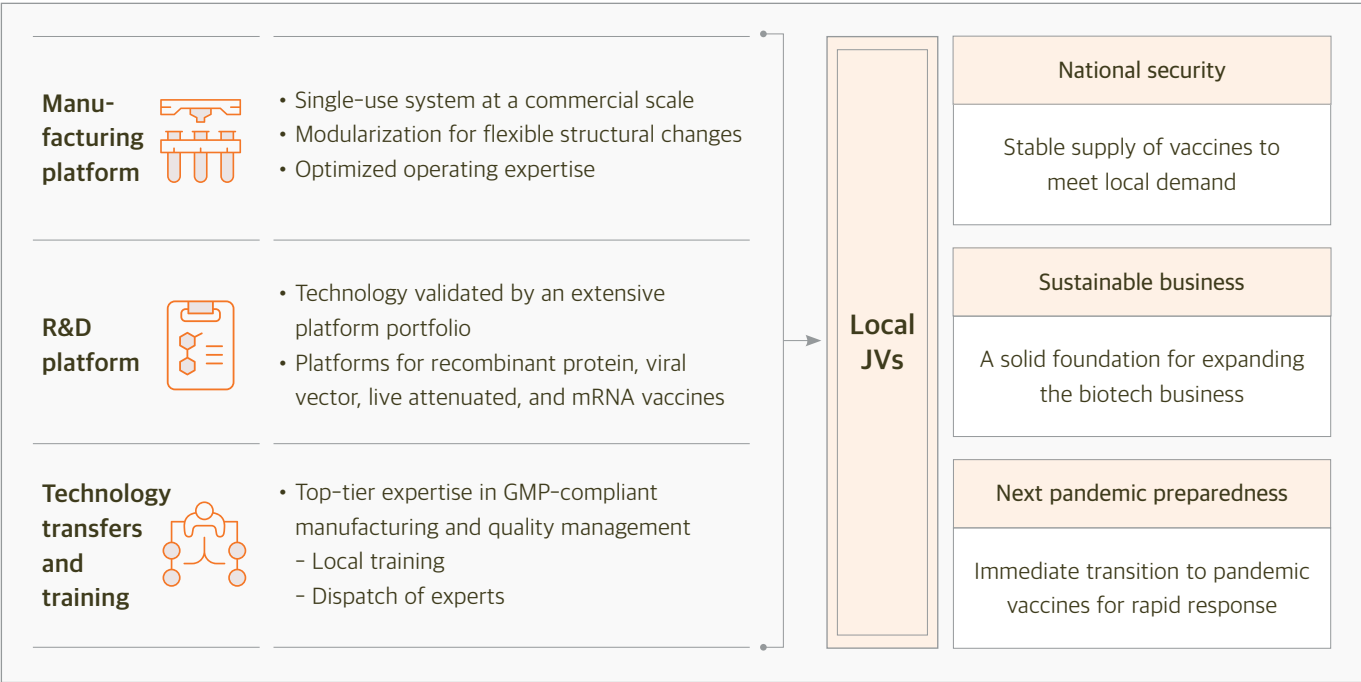
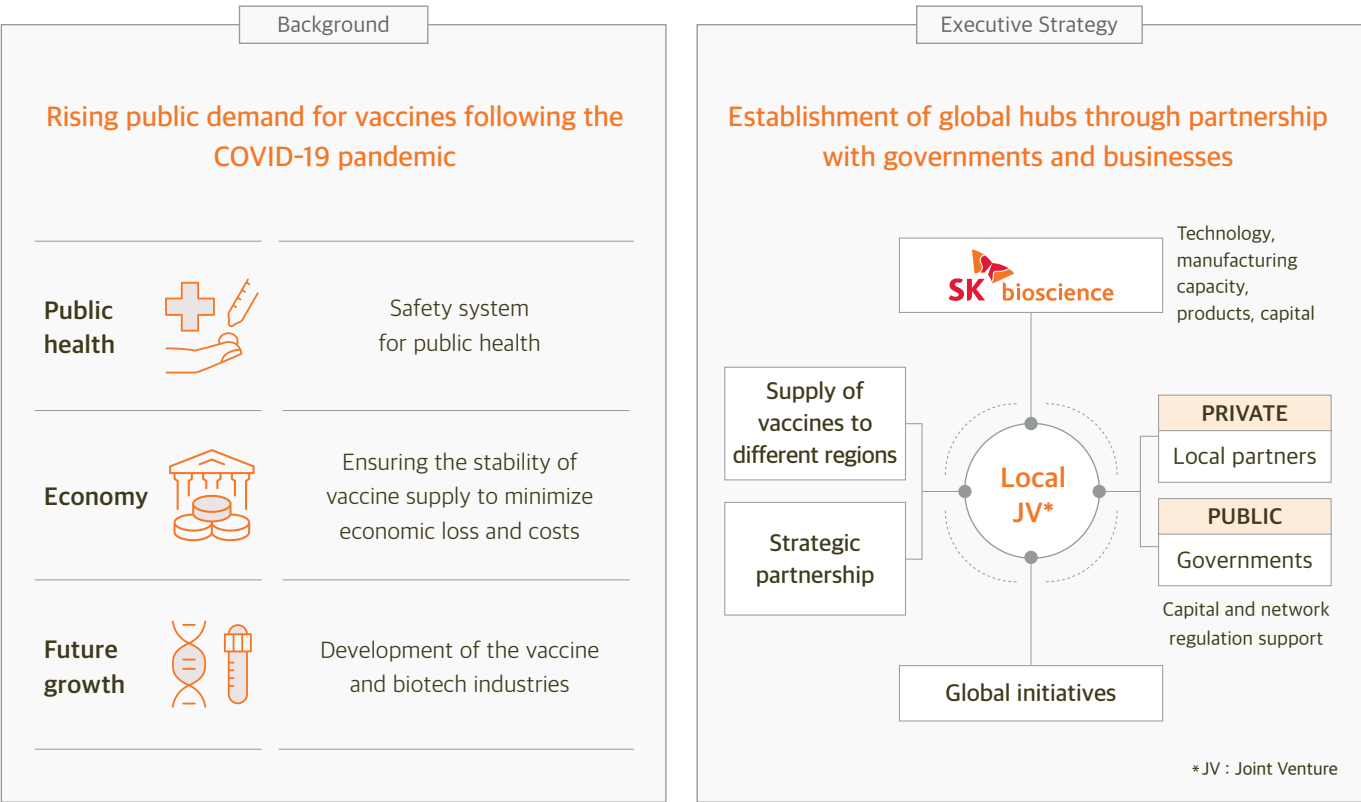
State-of-the-art aseptic filling technologies to handle liquid and lyophilized products

End-to-End Services



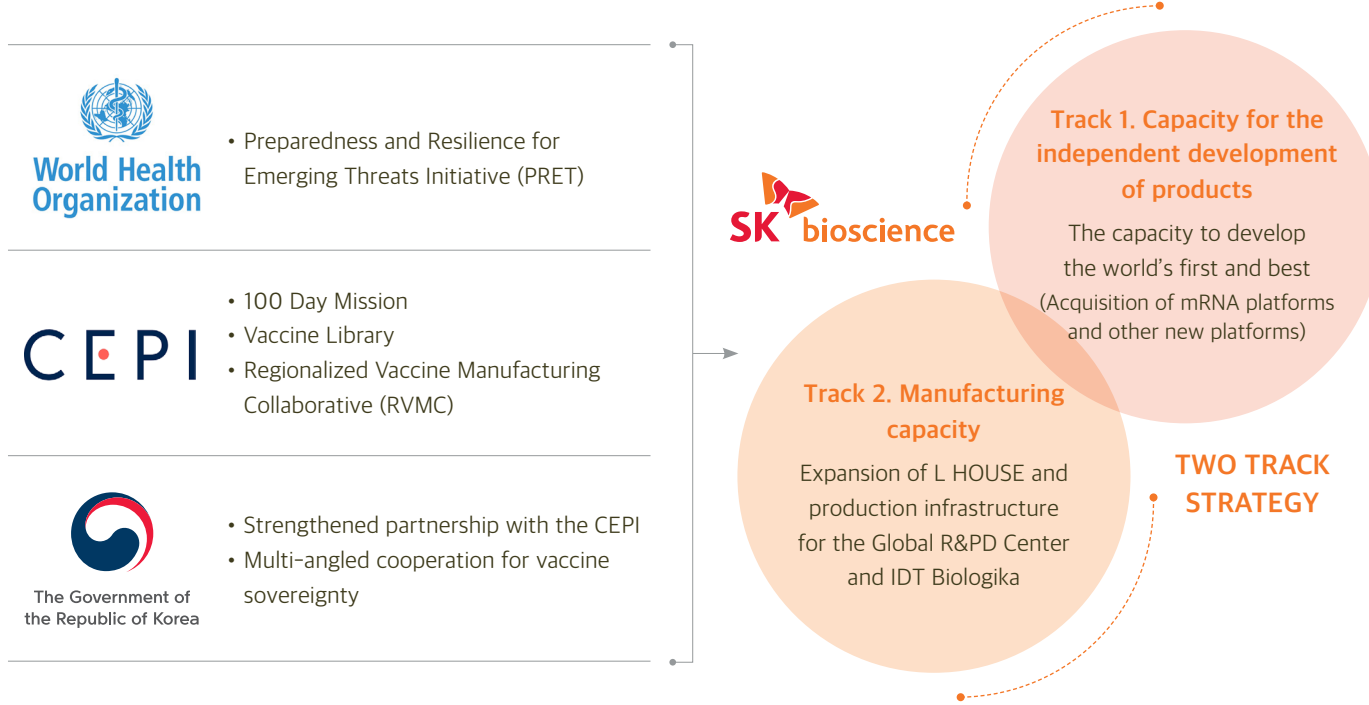
Glocalization : Global+Localization

Expansion of production sites to align with local demand and conditions, positioning SK bioscience as a network of global vaccine hubs



Next pandemic Preparedness

Collaboration with governments and global initiatives for the independent development of products and improvement of manufacturing capacity as needed for future pandemic preparedness



Partnership

Leveraging globally recognized technology, we collaborate with leading pharmaceutical companies and institutions worldwide on joint development and technology partnerships





ESG strategy direction		ESG targets	Milestones (2021~2024)		Short-term targets (2025)	Mid- and long-term targets (~2035)
E	Eco-friendly management system	• Climate change response and net zero		• Creation of a roadmap for GHG reduction • Issue of TCFD reports • PPAs for RE100 compliance	• Advancement and disclosure of net zero roadmap	• Achievement of RE100 and net zero
		• Advanced environmental management system		• Adoption of company-wide environmental management policy • ISO 14001 certification • Carbon Disclosure Project (CDP) compliance	• Biodiversity protection activities • Company-wide environmental training	• Compliance with the Taskforce on Nature-related Financial Disclosures (TNFD) • Advancement of environmental performance management and monitoring
S	Happiness of stakeholders	• Greater capacity and happiness of employees		• Strategic recruitment of talent and fostering of experts • Transparency in business human rights policy • Systematic assessment and audit of human rights	• Adoption of an employee happiness program • Improvement of human rights assessment followed by necessary changes	• DE&I as company culture
		• Social value in local communities		• Social responsibility strategies and long-term execution planning • Increase in philanthropic activities and performance management	• Increased employee participation in goodwill activities and greater satisfaction	• Improved communication with local communities
	Creation of social value across the industry	• Global biotech ecosystem		• Development of biotech professionals in Korea • Inauguration of the IVI-SK bioscience Park Mahnhoon Award • Vaccine fund investment	• R&D project support • Biotech venture support	• Open lab opportunities at the Global R&PD Center • Development of global vaccine experts
		• Social value through business		• Disclosure of plans for emerging and developing markets • Training of healthcare professionals	• Public health support for developing countries	• Ensuring the affordability and accessibility of pharmaceuticals
		• Supply chain sustainability		• Adoption and implementation of a Code of Conduct for suppliers • ESG risk management of main suppliers	• More inclusive ESG risk management of supply chains	• Partnered growth with suppliers
G	Sustainable and transparent governance	• Board-driven management		• Establishment and operation of a new ESG committee • Enactment of the Charter of Governance • Systematic performance evaluation of the board of directors	• Company-wide risk management and improved regulation of the board of directors	• Increased autonomy and diversity of the board of directors
		• Internalization of ESG management		• Setting and disclosure of ESG management strategies • Support and participation in ESG initiatives • Expansion of ESG application to the executive team's KPIs	• Planning and managing internalization activities for employees	• Expansion of ESG application to the relevant departments' KPIs • Further internalization by employees



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