



# SK bioscience

JP Morgan Healthcare Conference  
Jan. 2024





## Disclaimer

The information contained in this presentation has not been independently verified. No representation or warranty, express or implied, is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of the information or any opinion contained herein. The information contained in this presentation should be considered in the context of the circumstances prevailing at the time and will not be updated to reflect material developments that may occur after the date of the presentation. None of the Company, its affiliates, their officers, directors, employees or advisers and any other person relating to the Company shall have any liability whatsoever (in negligence or otherwise) for any loss arising from any use of this presentation or its contents or otherwise arising in connection with this presentation.

This presentation contains certain statements that constitute forward-looking statements. These statements typically contain words such as “believes”, “expects”, “anticipates”, “intends”, “plans”, “foresees”, or other words or phrases of similar import. Similarly, statements that describe the Company’s objectives, plans or goals also are forward-looking statements. All such forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those contemplated by the relevant forward-looking statement. There can be no assurance that the results and events contemplated by the forward-looking statements contained herein will in fact occur. None of the future projections, expectations, estimates or prospects in this presentation should be taken as forecasts or promises nor should they be taken as implying any indication, assurance or guarantee that the assumptions on which such future projections, expectations, estimates or prospects have been prepared are correct or exhaustive or, in the case of assumptions, fully stated in the presentation. The Company also cautions that forward-looking statements are subject to numerous assumptions, risks and uncertainties, which change over time and which may be beyond the Company’s control. The Company assumes no duty to and does not undertake to update any forward-looking statements to reflect actual results, changes in assumptions or changes in factors affecting these statements.

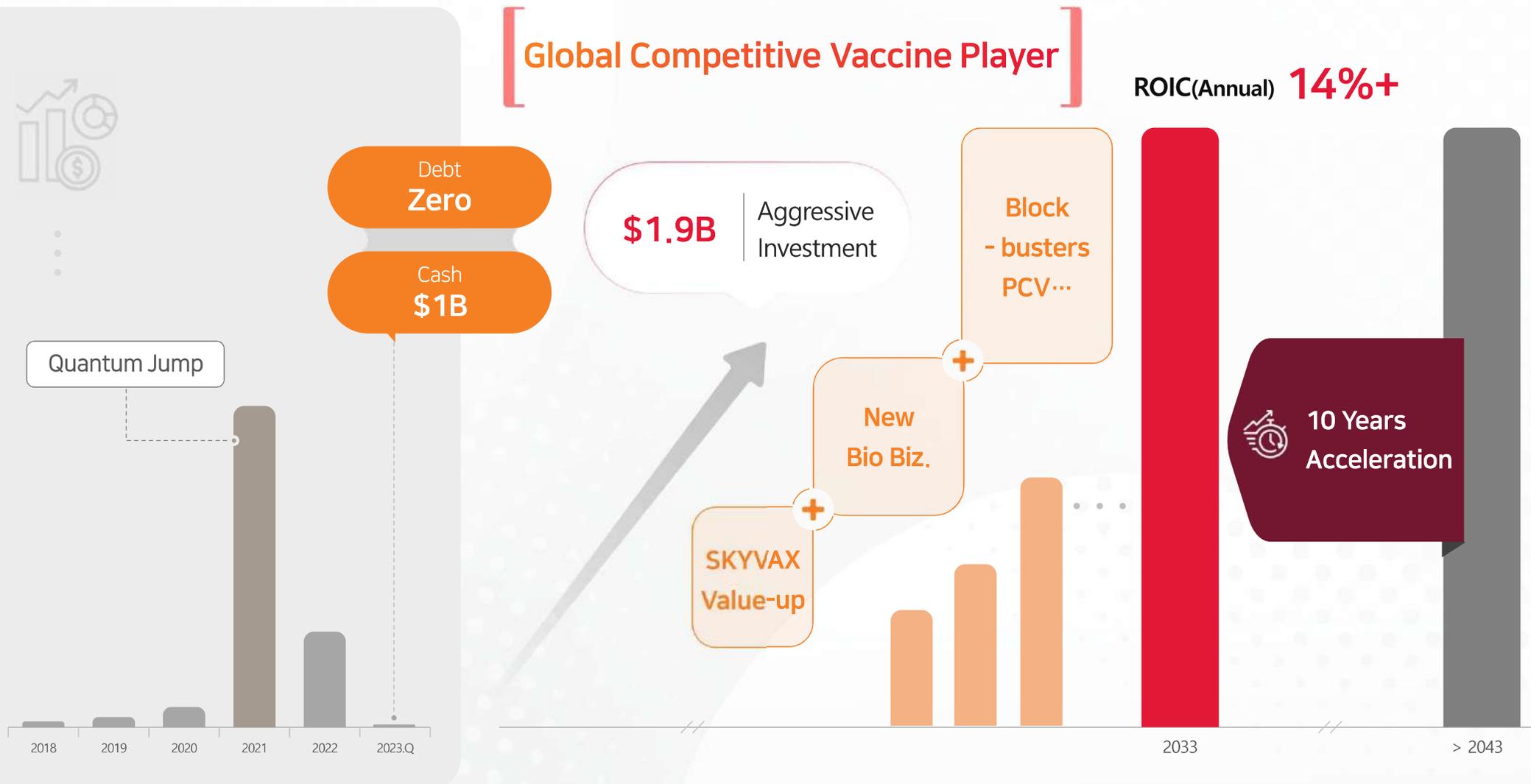
Certain data in this presentation was obtained from various external data sources, and the Company has not verified such data with independent sources. Accordingly, the Company makes no representations as to the accuracy or completeness of that data, and such data involves risks and uncertainties and is subject to change based on various factors.



Intro

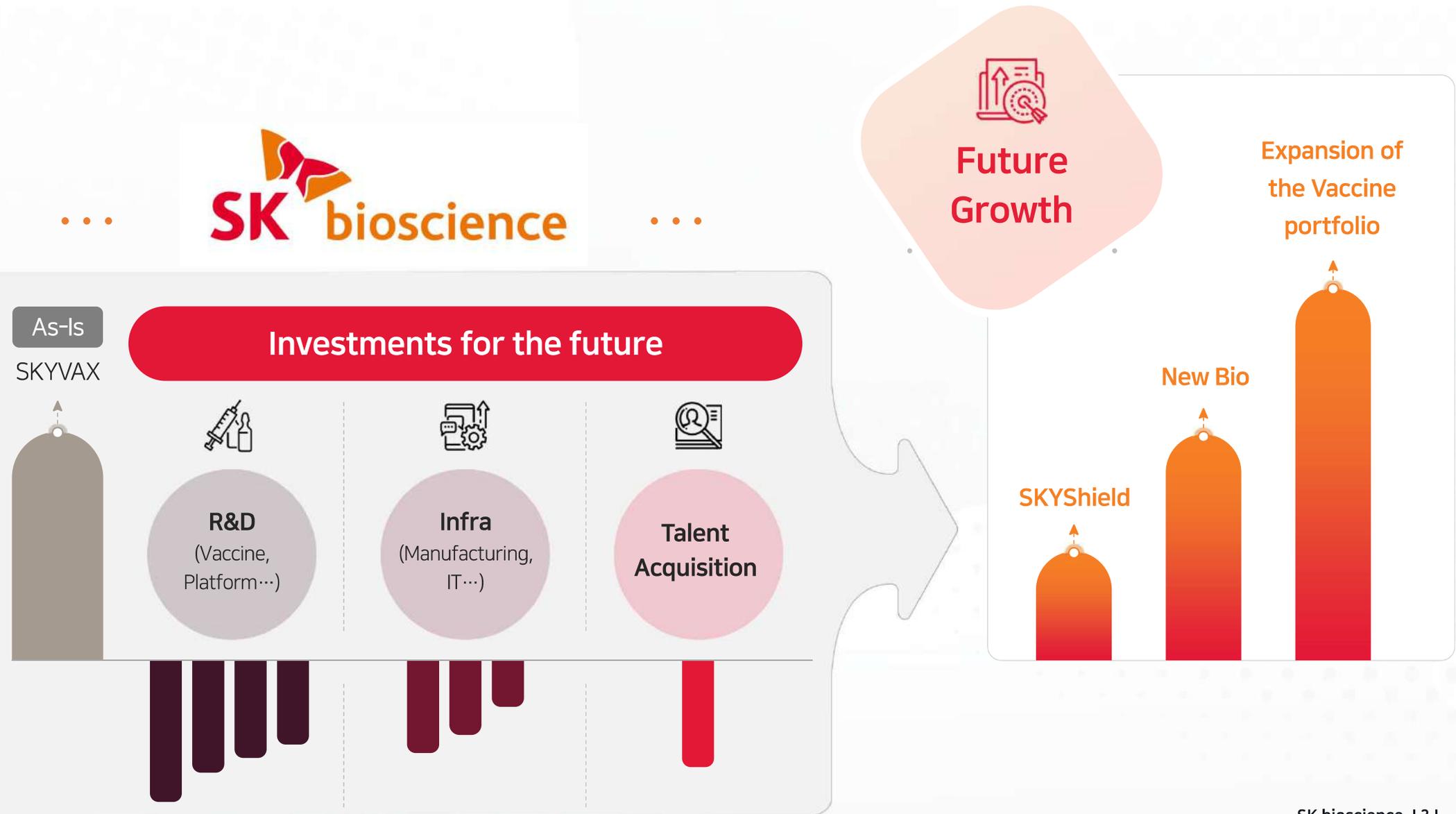
# Investment Plan for Accelerating Growth

Through aggressive investment of \$1.9B, we aim to expedite the next quantum leap, saving 10 years

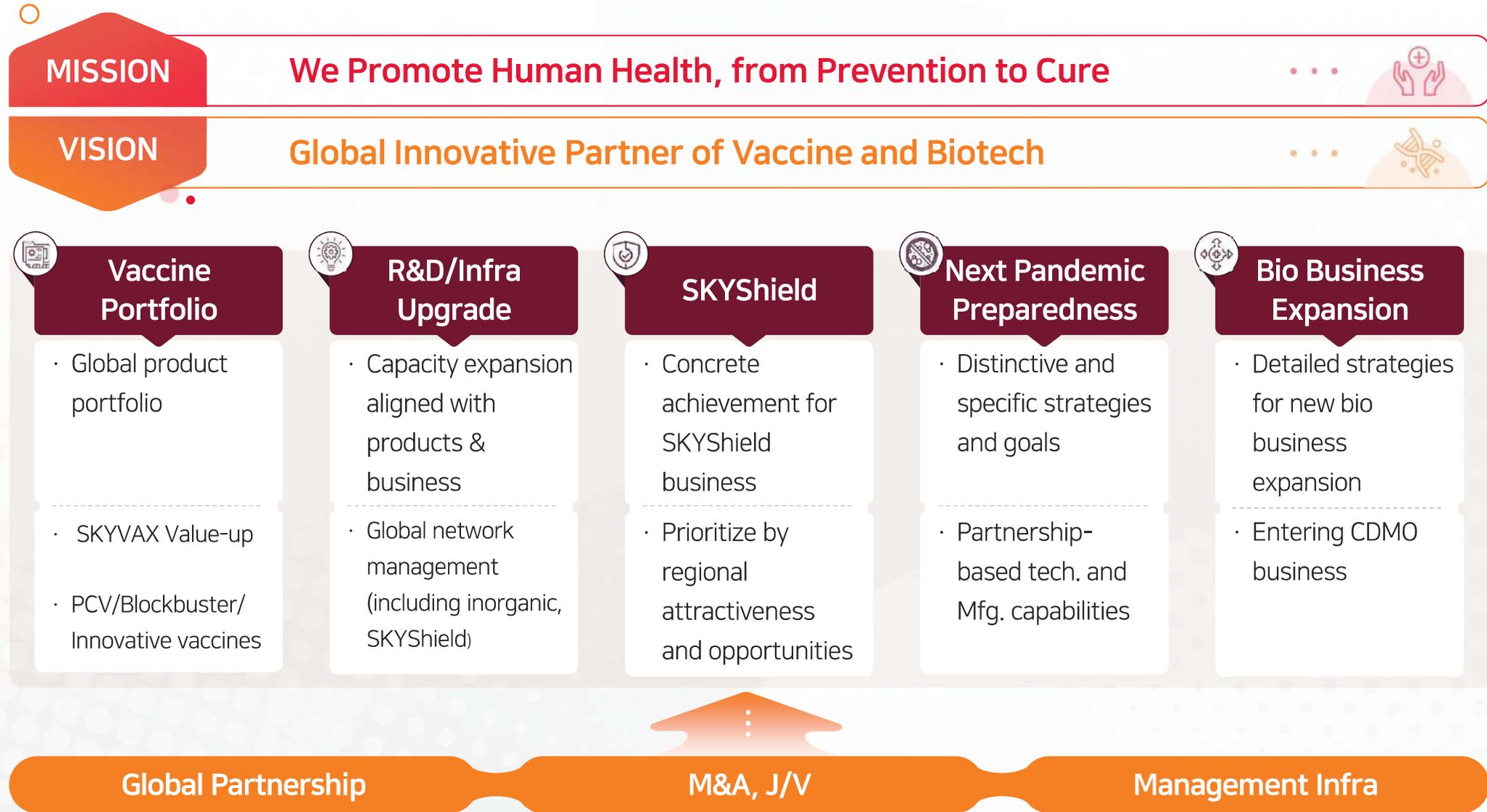


※ Exchange Rate : 1USD =1,289.4 KRW (Dec. 29<sup>th</sup> 2023)

# Strategies to Reserve Long-term Growth



# Converging Priorities: Focusing on the Five Pillars of Business



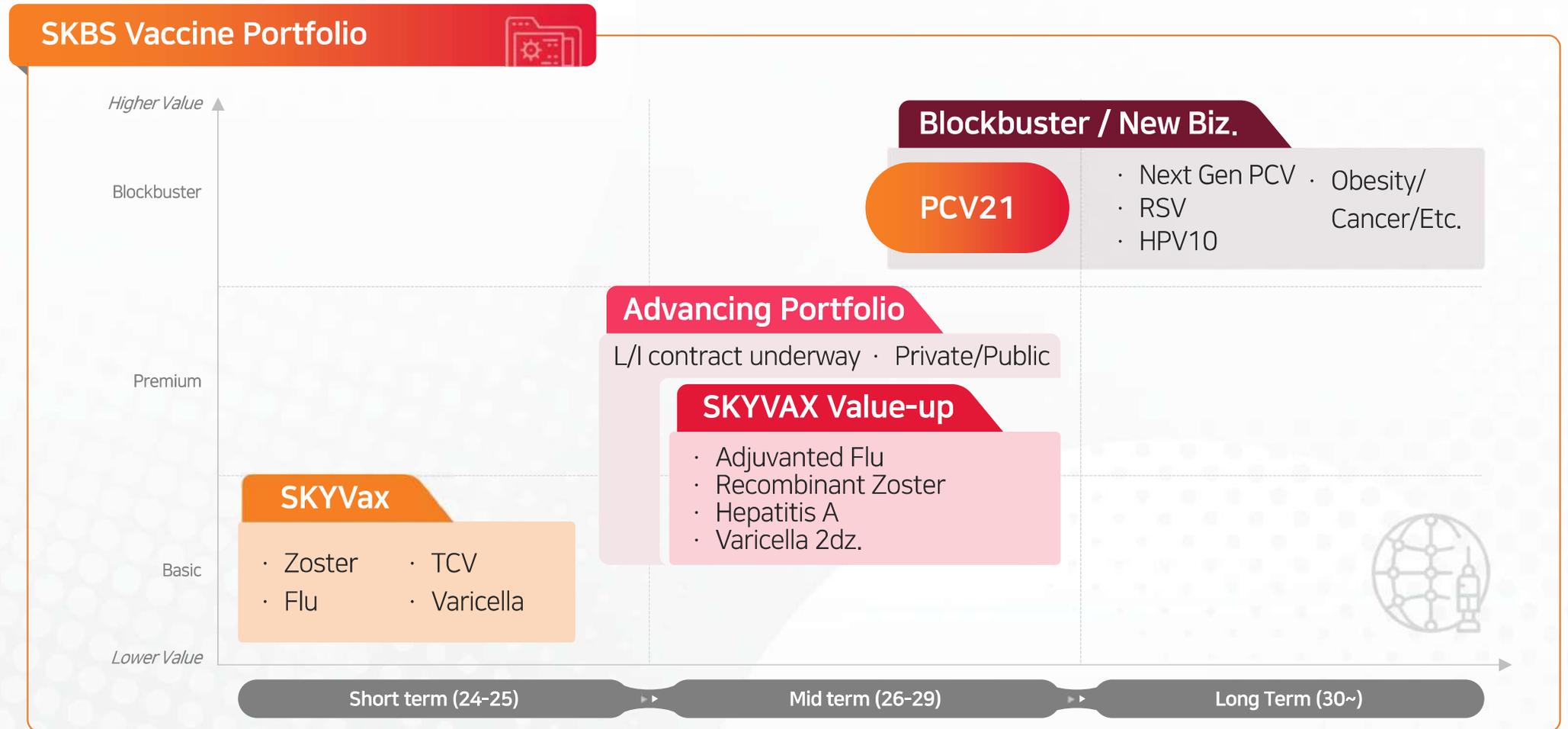


# Growth Strategy

- (1) Vaccine Portfolio
- (2) R&D/Infra Upgrade
- (3) SKYShield
- (4) Next Pandemic Preparedness
- (5) Bio Business Expansion

# (1) Vaccine Portfolio

Reinforce competitiveness of in-house developed vaccines while advancing blockbuster pipelines & new business area in the long term



# (1-1) Vaccine Portfolio : SKYVAX Value-up & Blockbuster

01



SKYVAX  
Value-up

## Adjuvanted Flu

- Differentiated flu vaccine for seniors
- Cell-culture + Adjuvant for higher efficacy

## Recombinant Zoster

- 1dz regimen, less pain
- Target high-income markets

## Varicella 2dz

- 2dz global option    1dz regimen in Korea
- Adjusted dosages to enhance immuno-safety

## Hepatitis A

- Strengthen basic vaccine portfolio
- Cost reduction via improved yields

02



Block  
-buster

## PCV

- Phase 3 clinical trial in 1H 2024
- Develop next-gen PCV with more serotypes

## HPV10

- Secure 1dz regimen
- Price reduction via better productivity platform

## RSV

- Prioritize based on approval trends
- Continuous candidate discovery and studies

## Cancer

- Secured patents for related tech
- Target hard-to-treat cancers    Cold tumor; breast cancer...

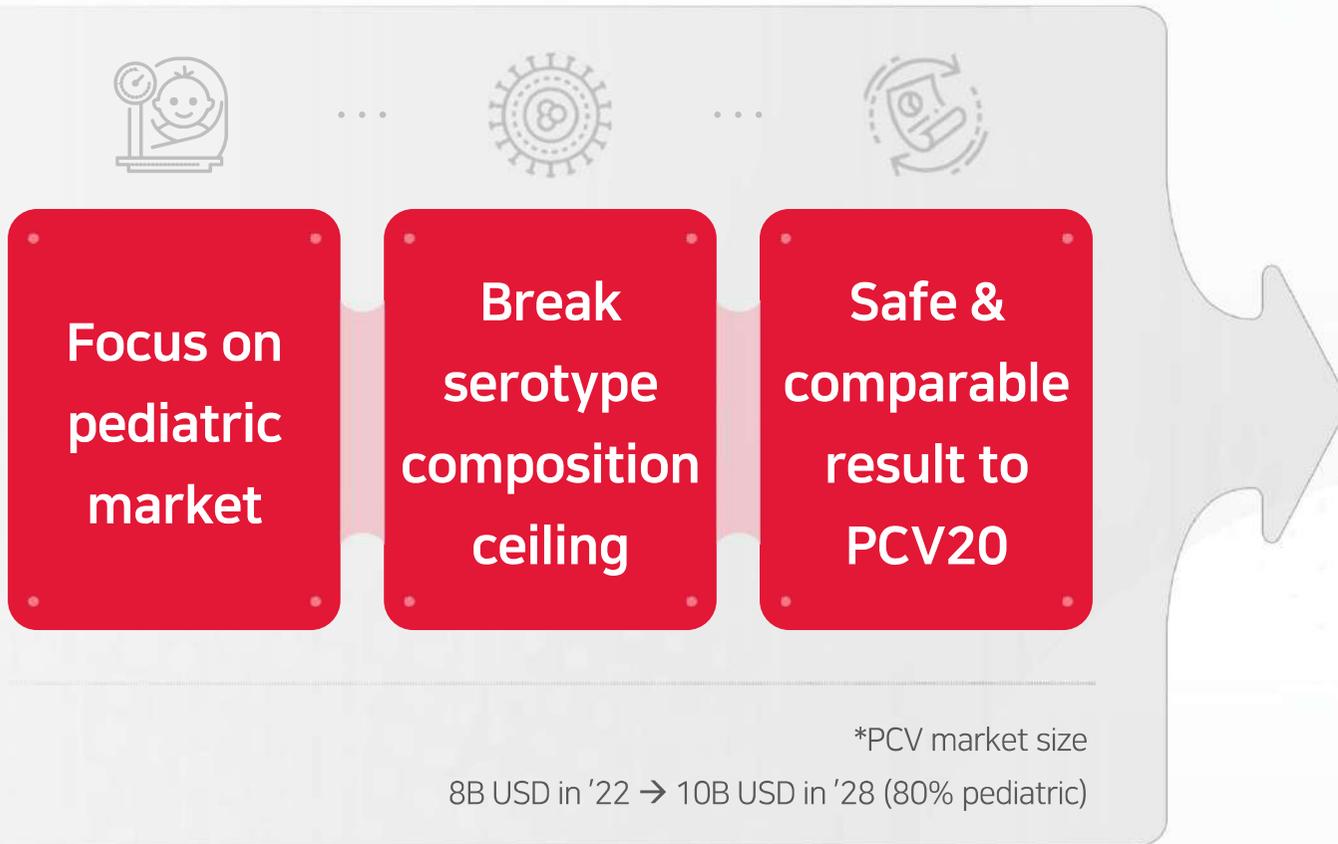
## Obesity

- Localized obesity treatment via immune response
- Secured patents after identifying candidates

# (1-2) Vaccine Portfolio : PCV21

First-in-Class PCV20+ in pediatric market

Phase 3 in 2024 1H / Submission in 2027

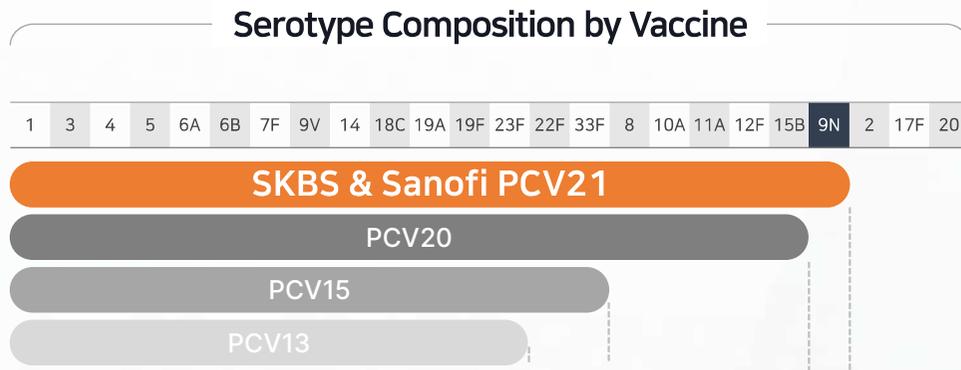


## Growth Strategy

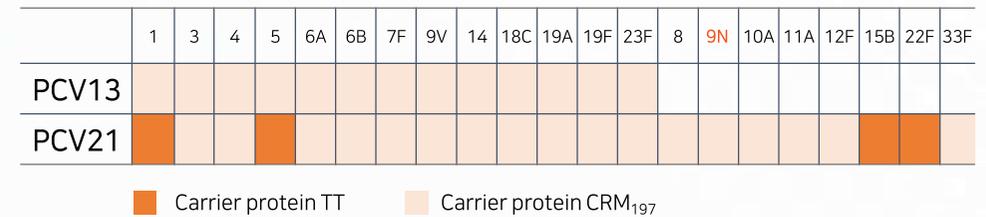
# (1-2) Vaccine Portfolio : PCV21

Expanding coverage with innovative technology

## Coverage Expansion

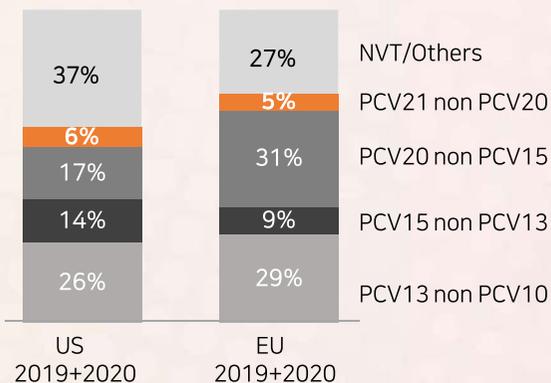


## Innovative Carrier



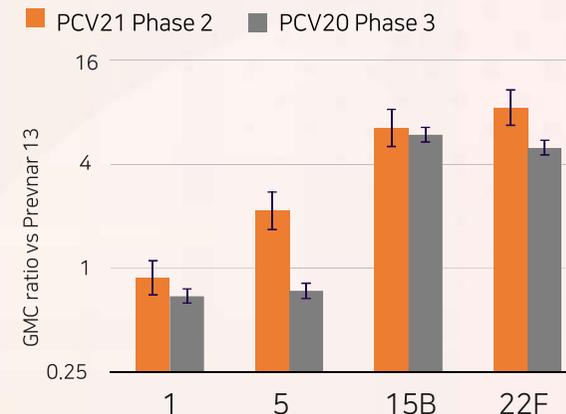
- Two carrier proteins to cover different serotypes with maximized immune response
- Mitigates immune interference common in multivalent conjugate vaccines

## IPD Coverage by Vaccine



“9N serotype provides 5~7% gain in IPD coverage across all ages”

## Post Dose 4: IgG GMC ratio



“Innovative carrier to break serotype composition ceiling”

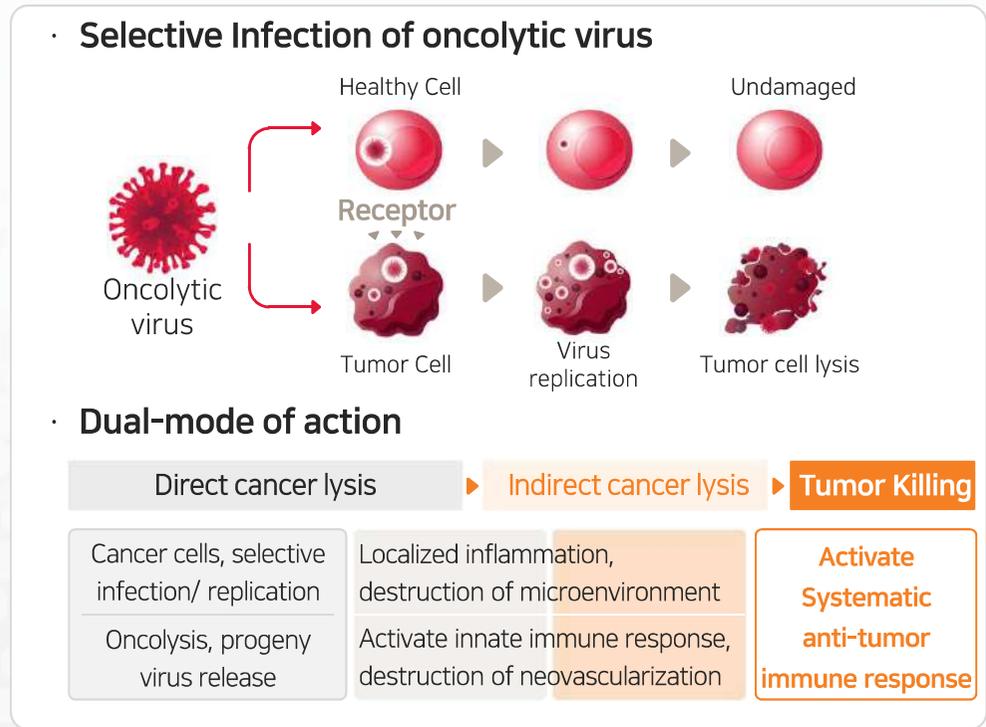
# (1-3) Vaccine Portfolio : Cancer Vaccine

Targets breast cancer easily accessible via intra-tumoral administration of an oncolytic virus

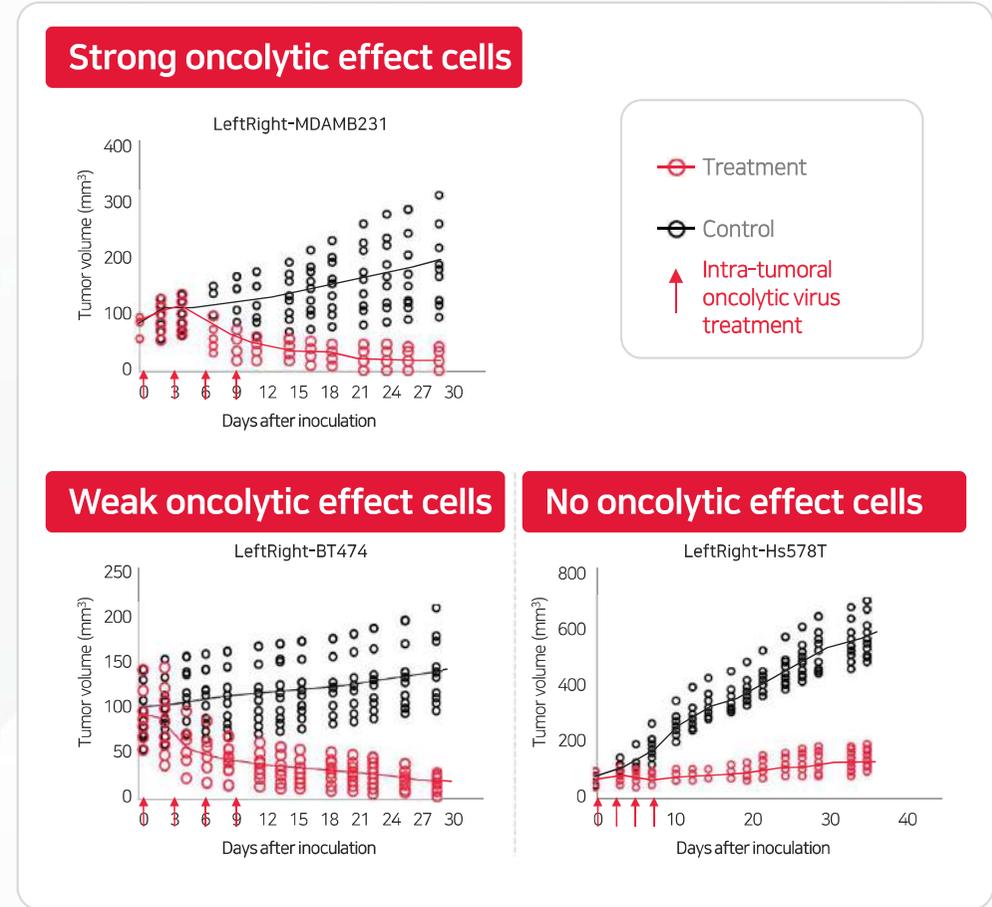
Preliminary research confirms value of Zika virus as an anticancer virus for breast cancer, patent secured

## Mechanism of Action

- Directly dissolves cancer cells using oncolytic virus
- Indirectly treats cancer cells by activating the immune system



## Study Data

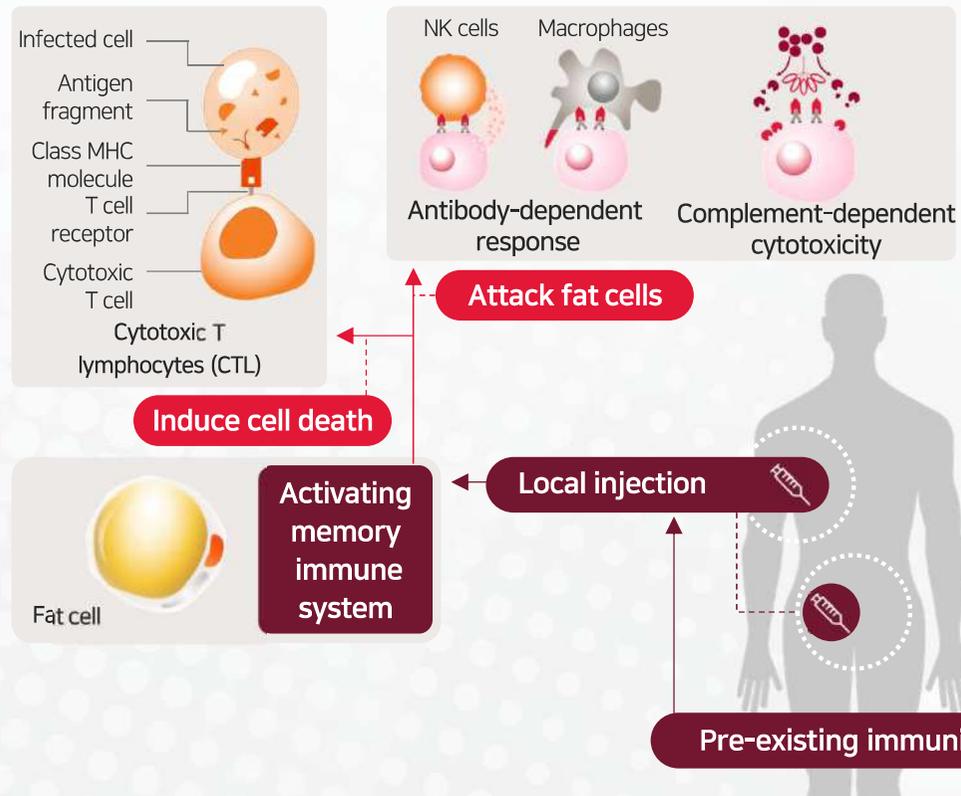


# (1-4) Vaccine Portfolio : Obesity Vaccine

Preliminary tests confirm fat-reducing effectiveness of treatment, patent secured  
 Expected to be utilized as a topical fat treatment

## Mechanism of Action

- Introduces a therapeutic agent to localized adipose tissue
- Activates the memory immune system and induces fat cell death

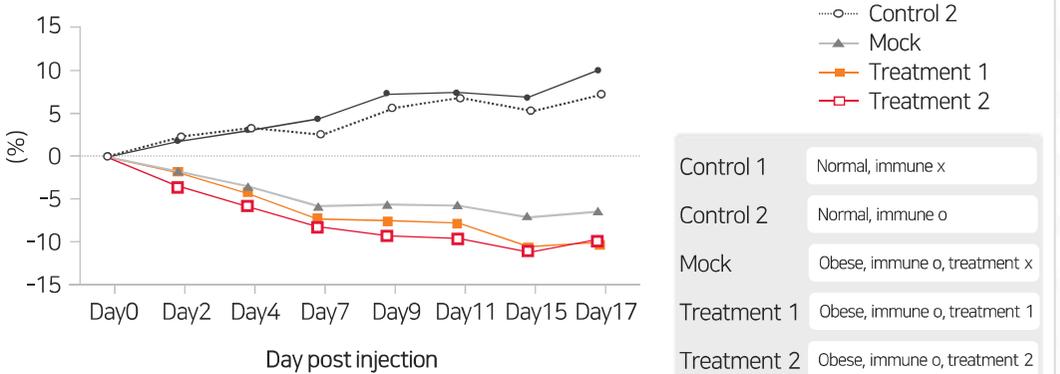


## Study Data

### % Change adipose tissue weight

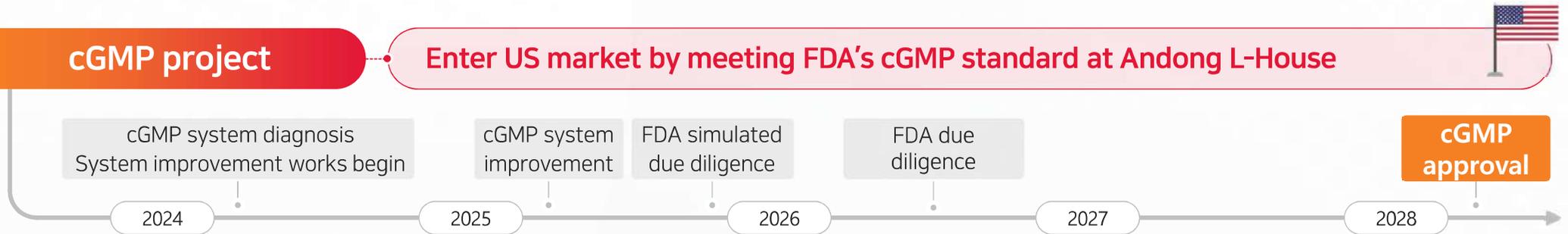


### % Change of body weight

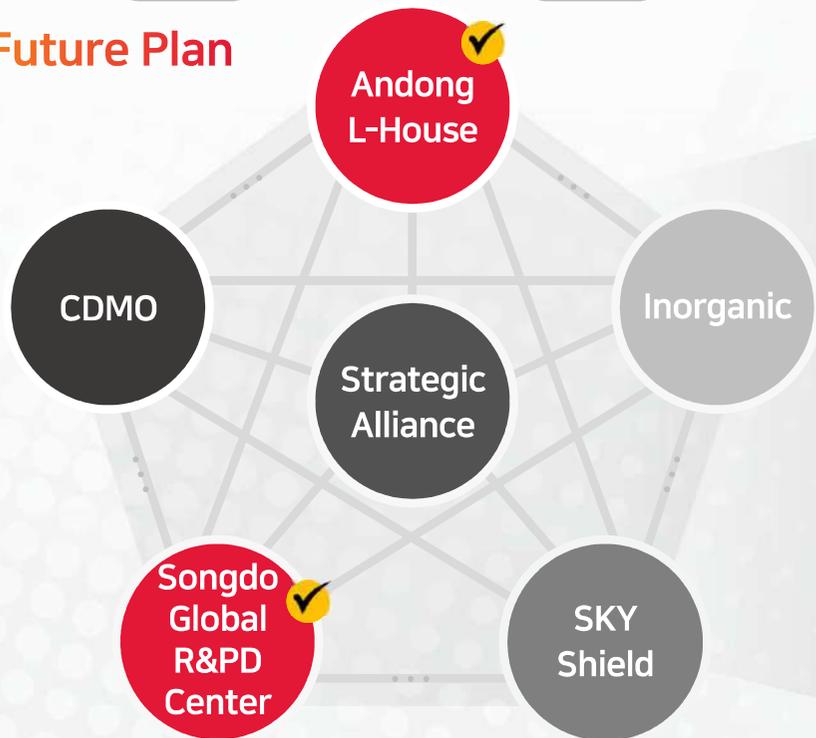


## (2) R&D/Infra Upgrade

Relocating R&D to Songdo Global R&PD Center, preparing to enter the U.S. with cGMP project, Securing additional capacity for large-scale initiatives



### Future Plan

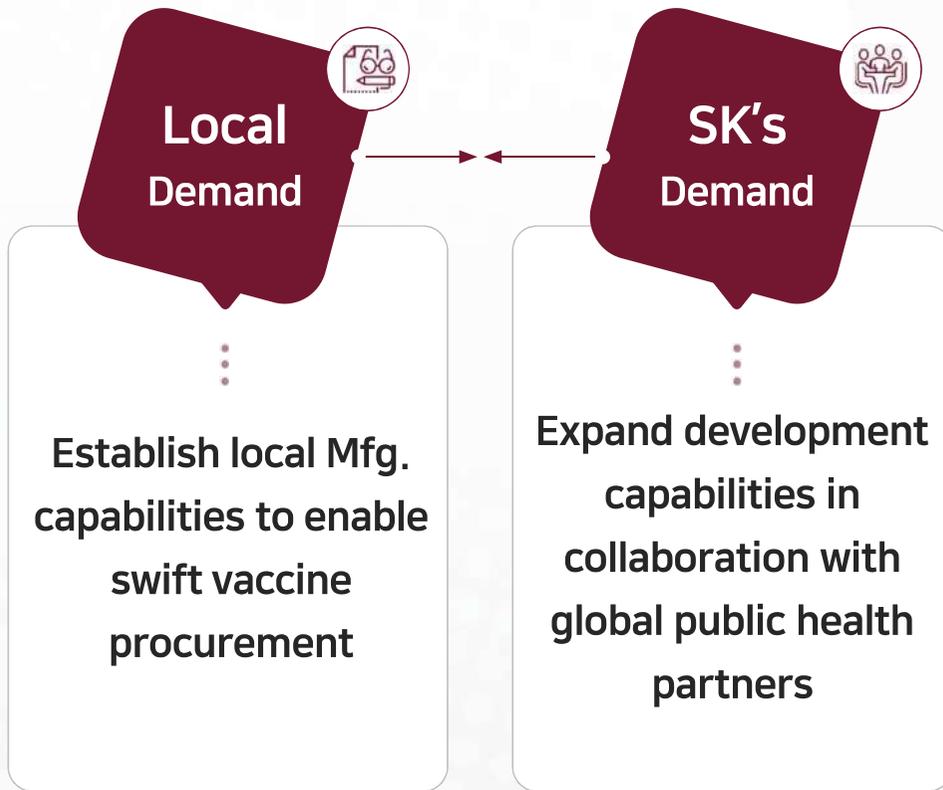


### Infra Management Strategy

- Songdo Global R&PD Center** (checked): R&D process development with cGMP pilot plant, completing a virtuous cycle infrastructure structure in conjunction with L House
- Andong L-House** (checked): Secure cGMP facility for products targeting high-income countries & PCV21 production
- In-organic**: Acquire stable revenue stream with extra capacity to seize opportunities for new business
- SKYShield**: Build a collaborative production base network to enhance long-term business sustainability through improved price and investment competitiveness

# (3) SKYShield

Establish global Mfg. base with multiple revenue model to suit regional needs and preferences



 ... Global network based on government partnership

## SKYShield in Asia



## Global Mfg. Network



# (4) Next Pandemic Preparedness

Pursue wave 1 vaccine player in next pandemic via mRNA platform with global initiatives

## SK Bioscience

To be a wave 1 vaccine player ...

01 CEPI mRNA platform project, funded \$140m

- ▶ JEV : commercialization
- ▶ Lassa Fever : vaccine library
- ▶ Completed L/I & supply contract for individual mRNA tech

02 Next-gen mRNA platform

- ▶ Stable immunogenicity delivery
- ▶ Mitigating cold chain conditions

R&D

RA

Mfg.

mRNA Platform

Network

Candidates

Funding

Economic Value



Advancing tech for premium vaccines

+

CEPI 100 days mission

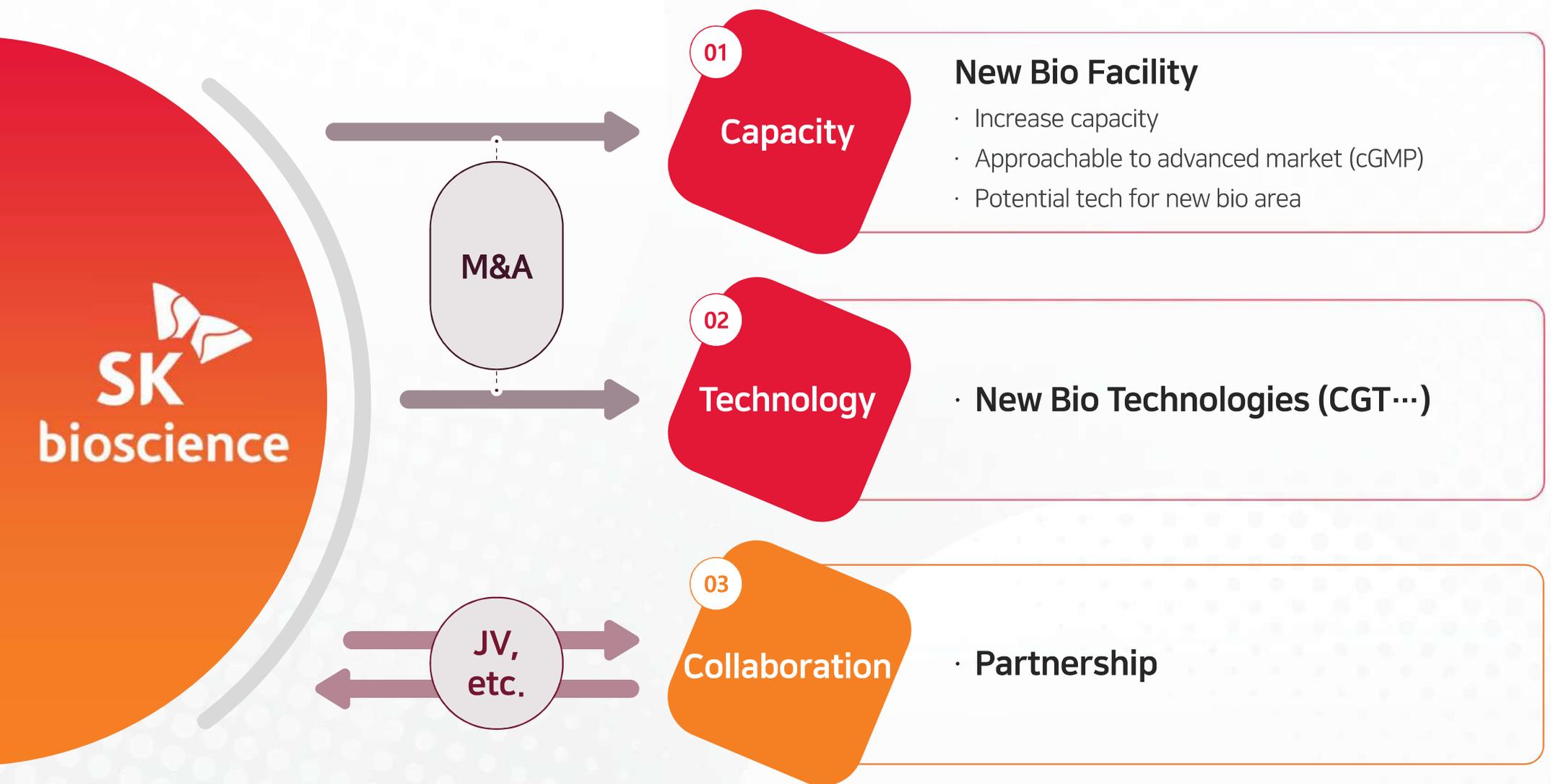


Social Value

Global Initiatives – CEPI, BMGF ...

# (5) Bio Business Expansion

Consider various options to capture a new opportunity





# Business Update & Earnings Results

- (1) Updated Novavax COVID Vaccine Supply
- (2) Income Statement
- (3) Financial Statement

# (1) Updated Novavax COVID Vaccine Supply

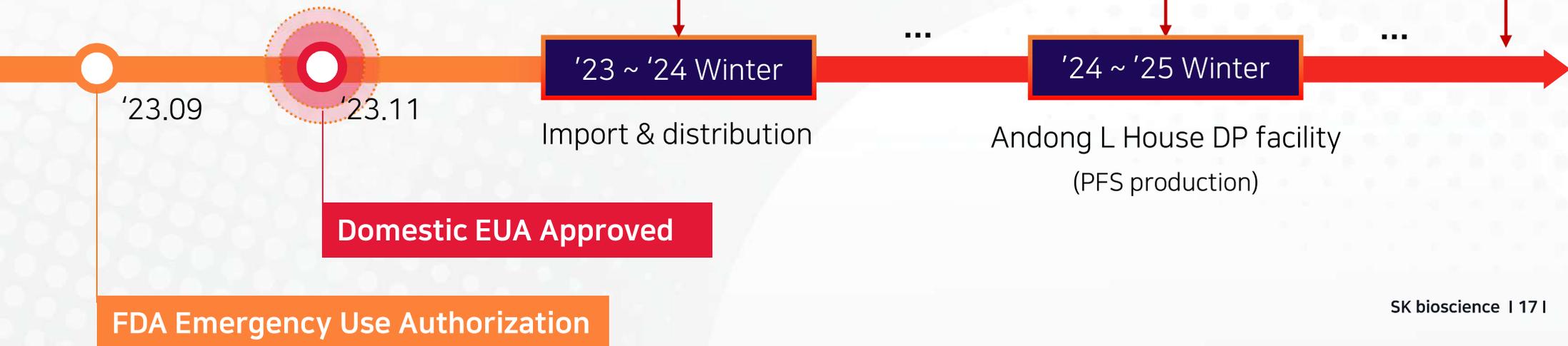
The only alternative to mRNA XBB vaccine

Differentiating with the strength of protein-based vaccines in endemic

## Novavax XBB.1.5 Exclusive domestic supply

- The only protein-based XBB vaccine authorized in USA
- Strength in safety / distribution / storage
- Commercialization rights in Thailand / Vietnam

Annual domestic winter vaccine



## (2) Income Statement (Consolidated)

Significantly improved 3Q result due to Novavax settlement and flu vaccine  
3Q cumulative net income turned to profit

(Unit : KRW 100mn)	3Q23	YoY	QoQ	3Q23 (YTD)
<b>Revenue</b>	<b>2,318</b>	+1,408	+2,053	<b>2,789</b>
<b>Gross Profit</b>	<b>1,055</b>	+497	+990	<b>1,128</b>
SG&A expenses	445	+101	+28	1,164
<b>Operating Profit</b>	<b>609</b>	+396	+962	<b>(36)</b>
Non-operating profit & loss	(23)	(41)	(84)	73
<b>Profit before Income Tax</b>	<b>586</b>	+354	+879	<b>37</b>
<b>Net Profit</b>	<b>484</b>	+276	+644	<b>181</b>

### YoY Difference

- Novavax settlement inflow
- Flu vaccine production restarted
- Zoster vaccine sales remain strong

※ R&D expense details

	3Q22	3Q23	YoY
Total R&D	344	353	+9
Funding	169	105	-64
R&D (SG&A)	174	249	+74

## (3) Financial Statement (Consolidated, KRW)

### Balance Sheet

(Unit : KRW mn)	2021	2022	3Q23
<b>Total Assets</b>	2,110,123	2,141,931	1,920,137
<b>Current Assets</b>	1,837,804	1,783,694	1,448,571
Cash & cash equivalents	1,645,663	1,480,806	1,225,227
Account receivable & other receivable	48,135	89,661	66,906
Inventories	135,046	187,406	139,197
Other current assets	8,960	25,822	17,242
<b>Non-current Assets</b>	272,319	358,237	471,566
PP&E	210,265	264,158	276,056
Intangible assets	17,061	18,181	24,328
Other non-current assets	44,993	75,898	171,182
<b>Total Liabilities</b>	508,811	400,229	197,233
<b>Current Liabilities</b>	459,952	380,037	183,245
Account payable & other payable	102,185	55,705	34,438
Short-term borrowings	11,671	45,550	-
Current bonds	47,978	38,008	-
Current contract liabilities	98,789	155,676	120,686
Other current liabilities	199,329	85,098	28,120
<b>Non-current Liabilities</b>	48,859	20,192	13,988
Bonds	35,503	-	-
Long-term borrowings	-	-	-
Other non-current liabilities	13,356	20,192	13,988
<b>Total Equity</b>	1,601,312	1,741,702	1,722,904
Capital stock	38,250	38,392	38,392
Capital surplus	1,157,064	1,160,008	1,160,008
Other equity	901	9,848	9,848
Accumulated other comprehensive income	(208)	77	(36,869)
Retained earnings	405,305	533,378	551,526
<b>Net Cash</b>	1,550,512	1,397,247	1,225,227

### Income Statement

(Unit : KRW mn)	3Q22	4Q22	'22 Cum.	1Q23	2Q23	3Q23	3Q(Cum.)
Revenue	91,053	140,301	456,726	20,597	26,478	231,826	278,901
COGS	35,264	90,432	217,115	19,712	19,997	126,344	166,054
<b>Gross Profit</b>	55,789	49,868	239,611	885	6,481	105,482	112,848
SG&A expenses	34,430	41,155	124,597	30,074	41,790	44,544	116,408
<b>Operating Profit</b>	21,359	8,714	115,014	(29,189)	(35,309)	60,937	(3,560)
Non-operating profit & loss	1,817	21,744	26,720	3,523	6,074	-2,315	7,283
<b>Profit before Income Tax</b>	23,176	30,457	141,733	(25,665)	(29,235)	58,623	3,722
Income tax	2,398	2,716	19,281	(11,398)	(13,258)	10,231	(14,426)
<b>Net Income</b>	20,778	27,742	122,452	(14,268)	(15,976)	48,392	18,148

※ Net Cash = Cash & Cash equivalents + Deposits - Debt (except Lease Liabilities)

## (3) Financial Statement (Consolidated, USD)

### Balance Sheet

(Unit : USD mn)	2021	2022	3Q23
<b>Total Assets</b>	1,779.9	1,690.2	1,427.8
<b>Current Assets</b>	1,550.2	1,407.5	1,077.2
Cash & cash equivalents	1,388.2	1,168.5	911.1
Account receivable & other receivable	40.6	70.7	49.8
Inventories	113.9	147.9	103.5
Other current assets	7.6	20.4	12.8
<b>Non-current Assets</b>	229.7	282.7	350.7
PP&E	177.4	208.4	205.3
Intangible assets	14.4	14.3	18.1
Other non-current assets	38.0	59.9	127.3
<b>Total Liabilities</b>	429.2	315.8	146.7
<b>Current Liabilities</b>	388.0	299.9	136.3
Account payable & other payable	86.2	44.0	25.6
Short-term borrowings	9.8	35.9	-
Current bonds	40.5	30.0	-
Current contract liabilities	83.3	122.8	89.7
Other current liabilities	168.1	67.1	20.9
<b>Non-current Liabilities</b>	41.2	15.9	10.4
Bonds	29.9	-	-
Long-term borrowings	-	-	-
Other non-current liabilities	11.3	15.9	10.4
<b>Total Equity</b>	1,350.7	1,374.3	1,281.2
Capital stock	32.3	30.3	28.5
Capital surplus	976.0	915.3	862.6
Other equity	0.8	7.8	7.3
Accumulated other comprehensive income	(0.2)	0.1	(27.4)
Retained earnings	341.9	420.9	410.1
<b>Net Cash</b>	1,307.9	1,102.5	911.1

※ Net Cash = Cash & Cash equivalents + Deposits – Debt (except Lease Liabilities)

### Income Statement

(Unit : USD mn)	3Q22	4Q22	'22 Cum.	1Q23	2Q23	3Q23	3Q(Cum.)
Revenue	70.5	108.7	353.7	15.8	20.4	178.2	214.4
COGS	27.3	70.0	168.2	15.2	15.4	97.1	127.6
<b>Gross Profit</b>	43.2	38.6	185.6	0.7	5.0	81.1	86.7
SG&A expenses	26.7	31.9	96.5	23.1	32.1	34.2	89.5
<b>Operating Profit</b>	16.5	6.7	89.1	(22.4)	(27.1)	46.8	(2.7)
Non-operating profit & loss	1.4	16.8	20.7	2.7	4.7	(1.8)	5.6
<b>Profit before Income Tax</b>	17.9	23.6	109.8	(19.7)	(22.5)	45.1	2.9
Income tax	1.9	2.1	14.9	(8.8)	(10.2)	7.9	(11.1)
<b>Net Income</b>	16.1	21.5	94.8	(11.0)	(12.3)	37.2	14.0

※ Exchange Rate (balance: end of the year, income: average)

USD/KRW	Balance	Income
2021	1,185.50	1,144.06
2022	1,267.30	1,291.15
2023.3Q	1,344.80	1,300.93



# Appendix

(1) Company Overview

(2) Company History

(3) Vaccine Business



# (1) Company Overview

## • Eco Hub (Pangyo): R&D Center •



• **The largest vaccine-dedicated R&D center in Korea**

• **Globally-competent specialists**  
(72% of total R&D personnel hold Master's or PhD degrees)

## • Songdo Global R&PD center •

• **Expansion of R&D / manufacturing infra**

- Fostering world class R&D network
- Construction started in 2022/ completion by 2025



### Number of Employees

1,051 (11.2023)  
(343 in R&D, 383 in production, 59 in marketing, and 266 staffs)



### ESG Rating

KCGS Grade A (11.2023)  
MSCI BBB (01.2023)



## • L-House (Andong): Manufacturing Plant •



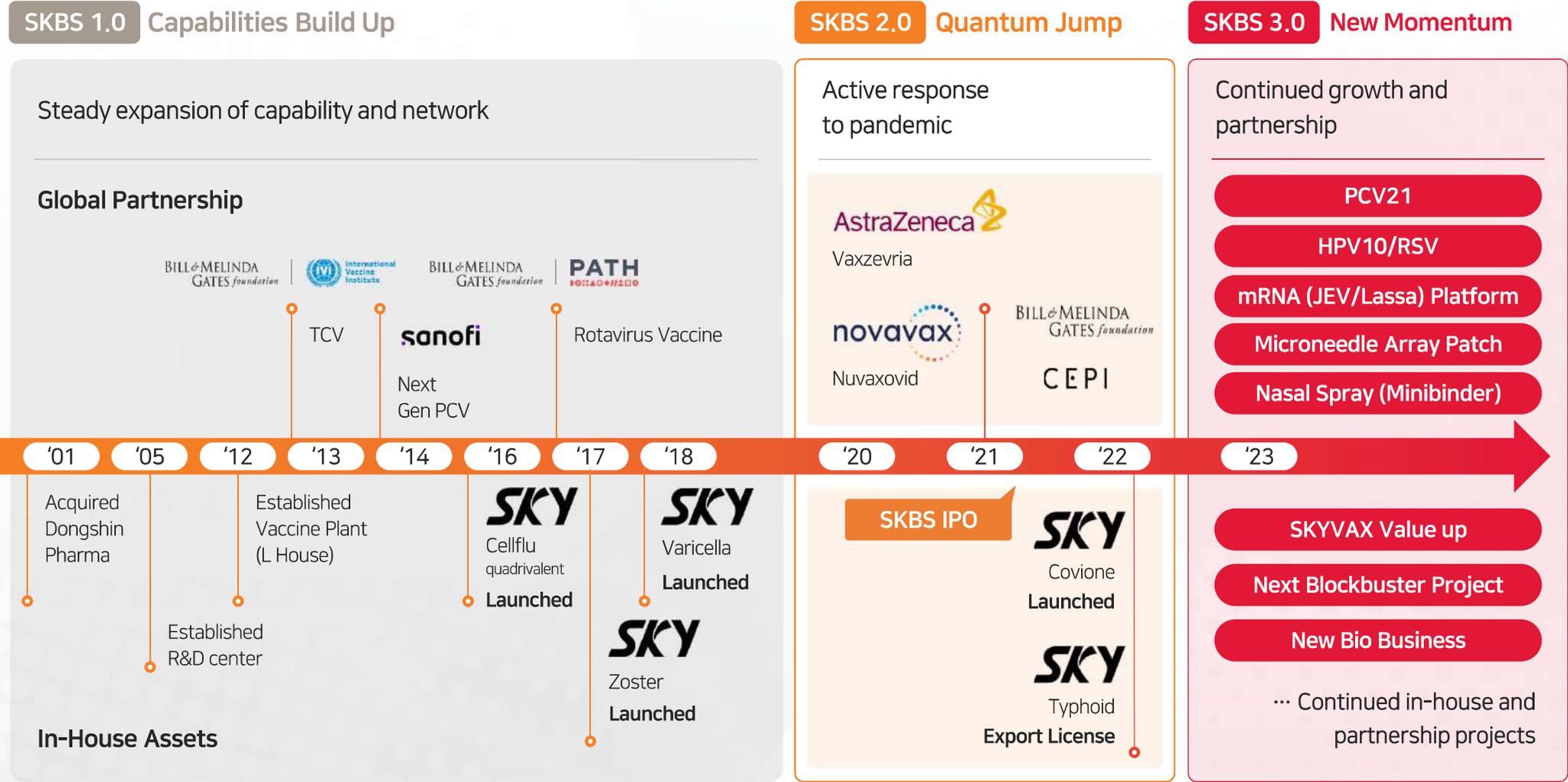
### • State-of-Art manufacturing capability

- 9 suites in total (8 culture suites, 1 cell bank)
- Full fill-finish capabilities (pre-filled syringe, oral injector, liquid vial, freeze-drying vial)

### • GMP(2014), EU-GMP(2021) Certified

### • Expansion in progress (by 2028)

# (2) History and Track Record



## (3-1) Vaccine Business : SKYVAX

WHO PQ

**SKY**Cellflu  
quadrivalent

- ✓ The world's 1<sup>st</sup> quadrivalent cell-culture influenza vaccine
- ✓ Expanding to southern hemisphere

WHO PQ

**SKY**Varicella

- ✓ Korea's first and only WHO PQ-certified varicella vaccine
- ✓ Contracted with PAHO

WHO PQ

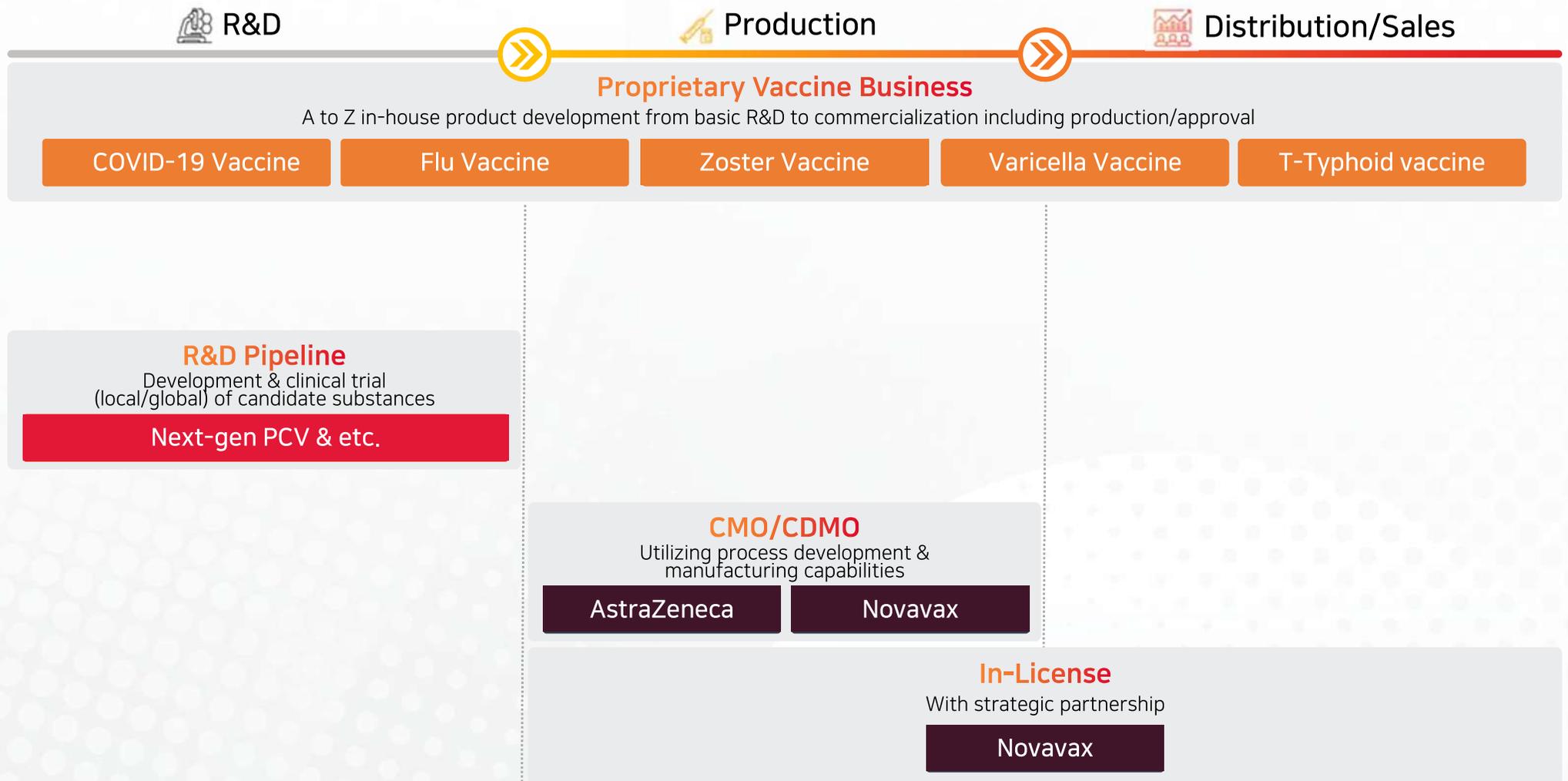
**SKY**Zoster

- ✓ The World's 2<sup>nd</sup> zoster vaccine
- ✓ 1<sup>st</sup> M/S in Korea in 1H 2023

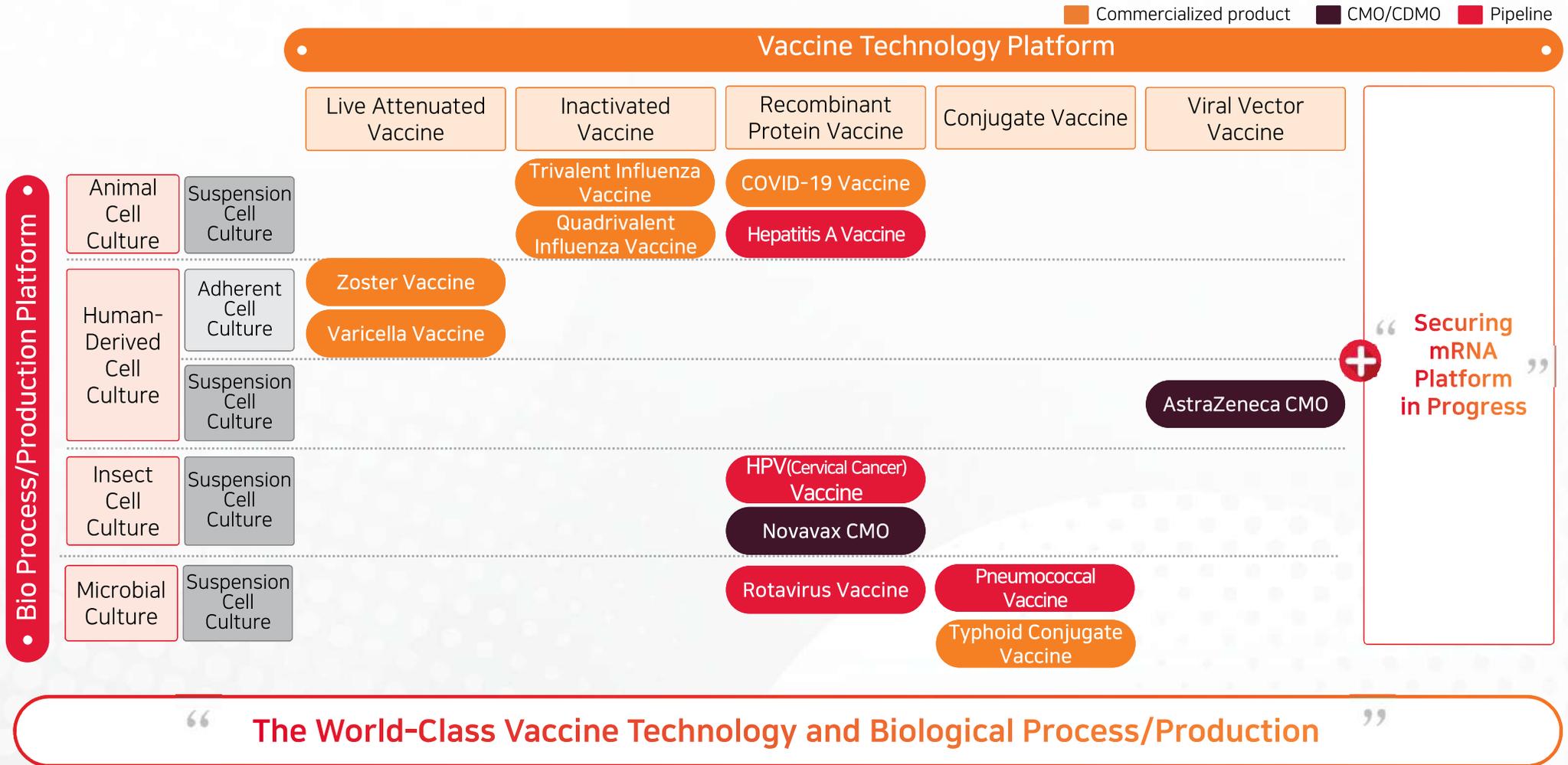
**SKY**Typhoid

- ✓ Co-developed with IVI  
(International Vaccine Institute)
- ✓ Planning to supply globally once obtaining WHO PQ

# (3-2) Vaccine Business : Full Value Chain Coverage



# (3-3) Vaccine Business : Extensive Platforms





**End of Document**

