



SK CMO Business Overview

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1. Global CMO Industry Trend

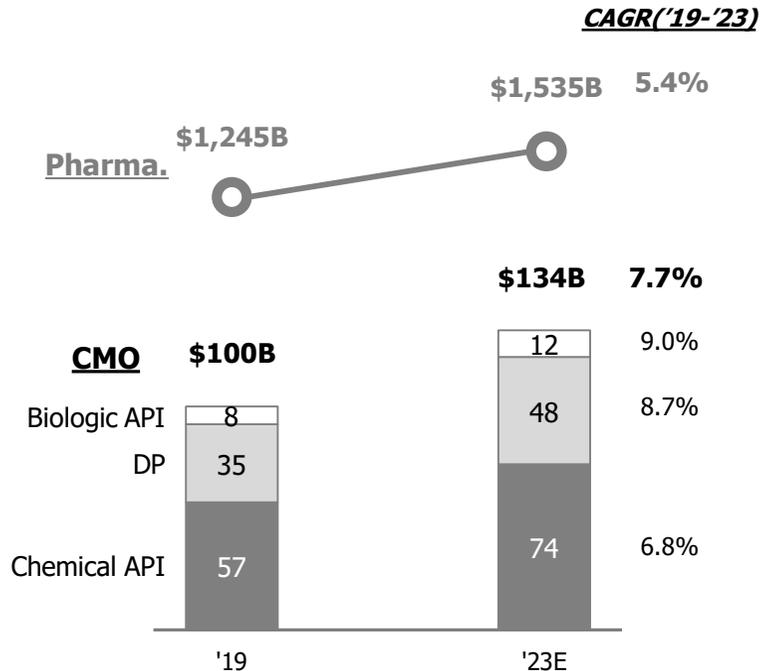
- **Global CMO Market Outlook**
- **Global CMO Market Trend**

Global CMO Market Outlook

The CMO market is expected to outgrow steadily growing pharmaceutical market. Chemical API maintains more than 50% of the market share and the growth of biologic API is expected to expand more.

Global CMO Market

- Expansion of pharmaceutical companies' investment and outsourcing (production/development) will drive continued growth in the CMO market



Chemical API

- Maintains 50%+ share in the CMO Market

Biologic API

- Accelerate the growth by an increased development in immuno-oncology and personalized therapy

DP

- Expand market due to the increased demand on reformulated drugs and injectable

Global CMO Market Trend ①

CMOs with regulatory track record and specialized technologies in the US are more likely to have business opportunities

Importance of the US facilities

- ❑ **The change of business environment in the US, the largest pharma market, brings more business opportunities for CMO w/ the US facilities**



- ✓ **Increase in competitiveness and preference of the US products**
- ✓ **Expansion of major global CMOs' capacity in the US**

Importance of R&D Capabilities

- ❑ **Due to the increase in the difficulty of manufacturing processes, pharmaceutical companies prefer to collaborate with the CMO that has R&D capabilities**

Process Development

- **Simultaneous development of clinical/commercial production processes**
- **One-stop service from API manufacturing to DP formulation developing**

Specialized Tech.

- **Continuous Process and purification technology that reduces the cost and is eco-friendly**
- **Capability to handle high potent API(HPAPI) and Controlled Substance**

Personalized Therapy

- **Development of highly efficient and stable cell line and viral vectors**
- **Know-how for cell culture and purification**

Global CMO Market Trend ②

Recent M&A activities are focused on advanced medicinal products and R&D capabilities. Especially, the top 3 CMOs delivered a strong financial performance by M&A in a biologic sector, including cell and gene therapy.

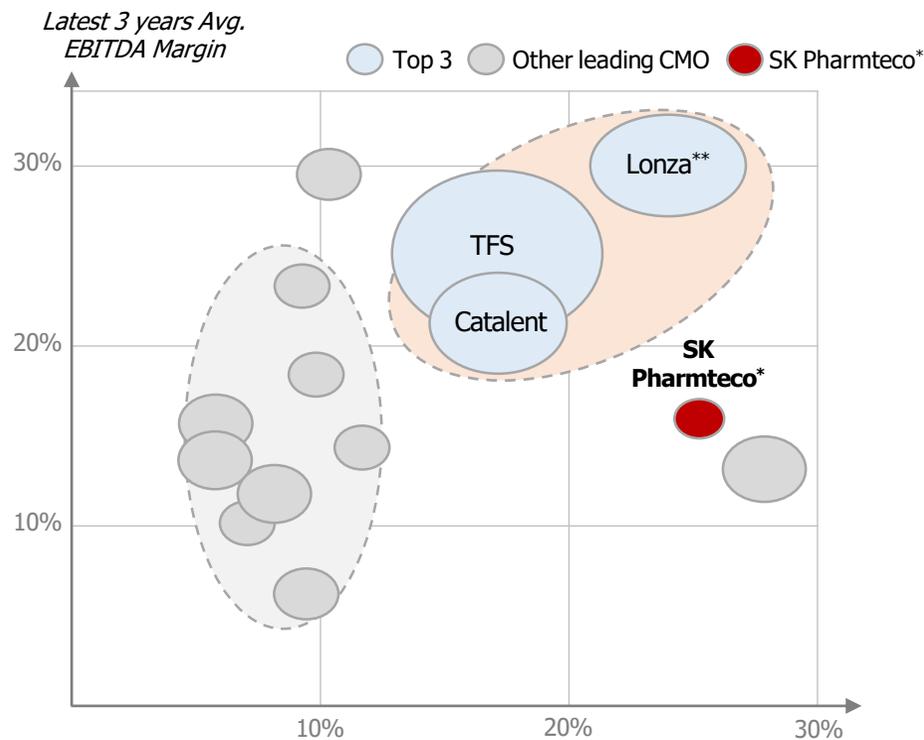
Recent Major M&A Cases

- Most M&A deals are focused on a biologic and a drug product sector rather than expanding a capacity.

Date	Buyer	Target	Area	Trans. Value
'21	TFS	Novasep	CGT	\$879M
'20	Catalent	MasTherCell	CGT	\$315M
	Recipharm	Consort Medical	DP	\$890M
'19	Catalent	Paragon	CGT	\$1.3B
	TFS	Brammer	CGT	\$1.8B
	Fujifilm	Biogen	Bio	\$890M
	Cambrex	Avista	DP	\$305M
'18	Cambrex	Halo Pharma	DP	\$425M
	Fujifilm	Irvine Scientific	Bio	\$800M
	Catalent	Cook Pharma	DP	\$950M
'17	Catalent	Juniper	DP	\$122M
	TFS	Patheon	DP	\$7.2B

Leading Players' Financial Performance

- The top 3 CMOs boldly entered a biologic sector with a large investment, delivering a strong financial performance



* During '19~'20 only

** Excluding LSI segment

Latest 3 years Revenue CAGR

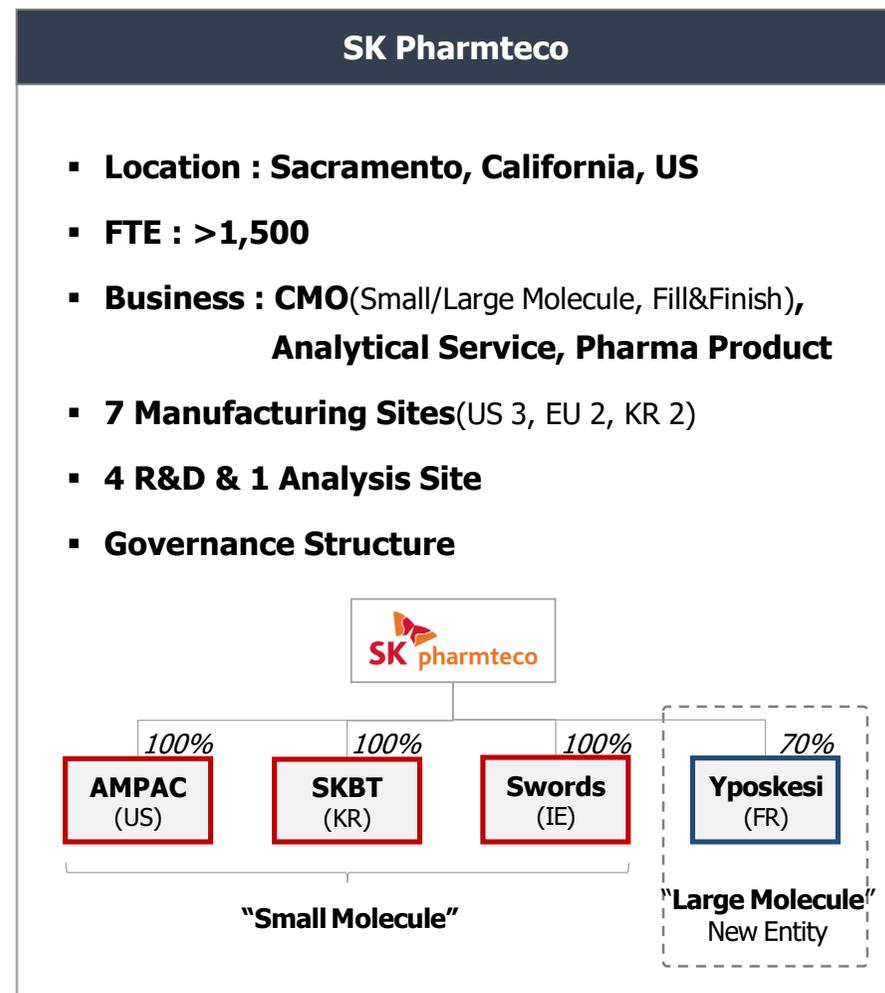
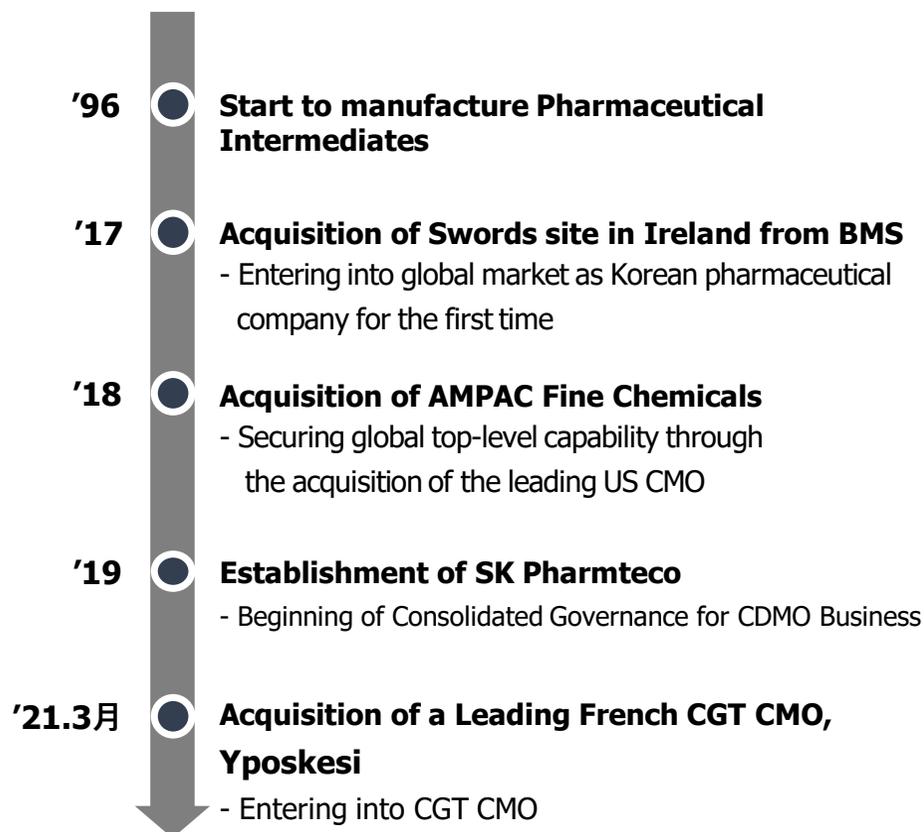
2. SK CMO Business Overview

- **SK CMO Business History**
- **SK CMO Business Structure
& Financial Performance**

SK CMO Business History

SK CMO Business has more than 20 years of experience in CMO. And now, we are a Global Leading CDMO by three cross-border M&A and establishment of consolidated corporation, SK Pharmteco.

Our History



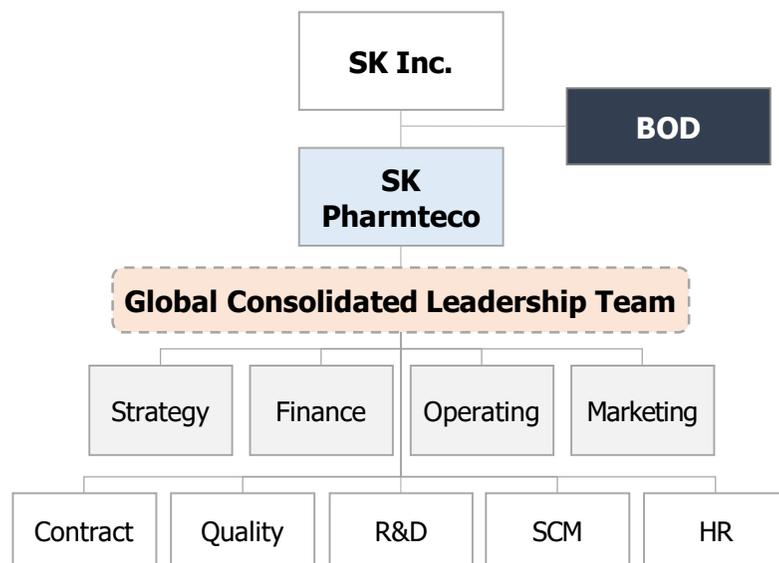
SK CMO Business Structure & Financial Performance

SK Pharmteco delivers a solid financial performance through an optimized global management system and a consolidated operation

SK CMO Business Structure

❑ Manage global operation through BOD and consolidated leadership team

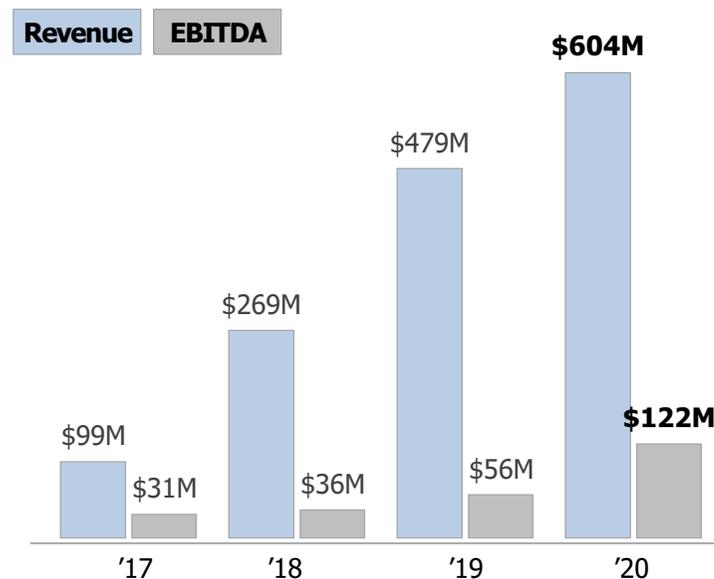
- BOD members hold expertise in CMO biz and know-how of SK Mgmt. system
- Management team with over 25 years of experience



Financial Performance

❑ Revenue has increased more than 6 times compared to 2017 and 20% of EBITDA margin driven by SK Pharmteco's integrated operation

- A strong financial performance by integrated & optimized key operation functions, such as marketing, quality, etc.



3. Entering into CGT CMO

- **Biologic CMO Market Outlook**
- **Entering into CGT CMO**
- **Acquisition of Yposkesi**

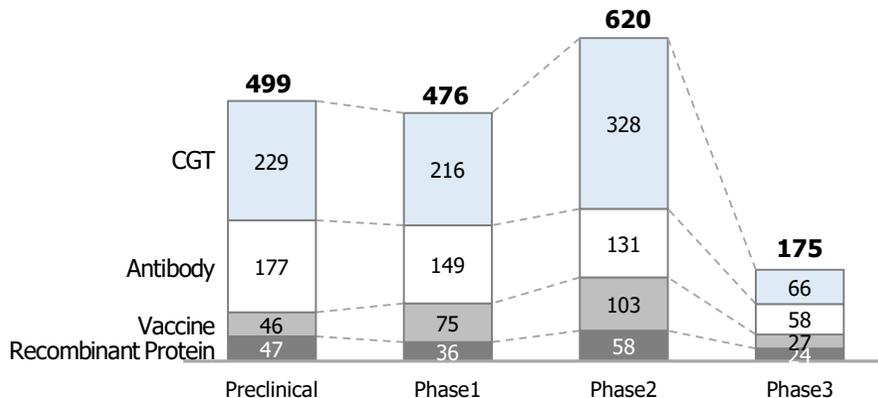
Biologic CMO Market Outlook

Biologic Pharmaceutical/CMO Market is expected to grow continuously due to proactive R&D investment and dedicated biologic pharmaceutical regulatory support

Biologic Pharmaceutical Market

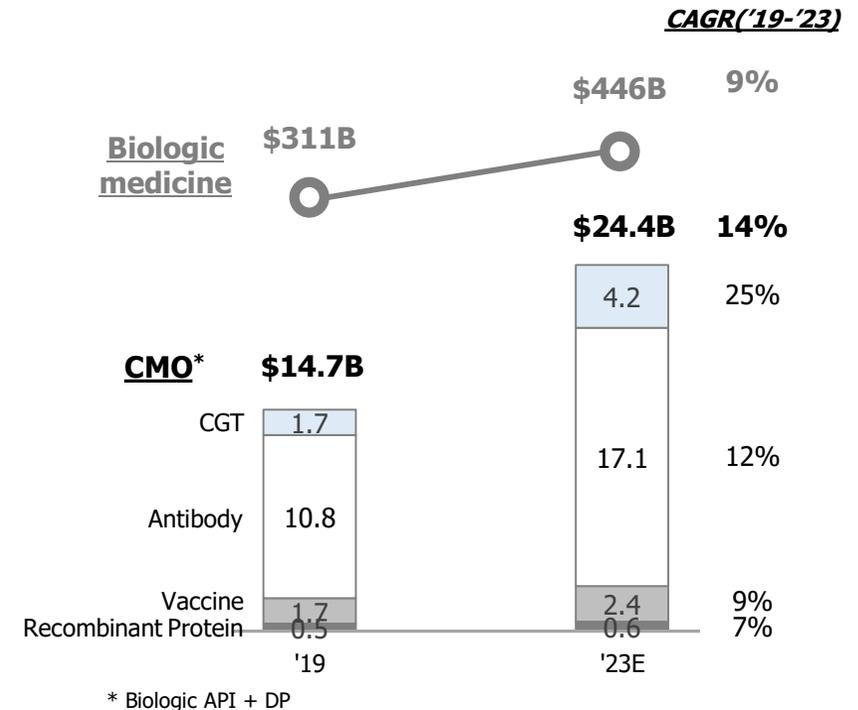
- ❑ Pharmaceutical companies' investment in new drug development and government support policies continue to increase the clinical development of bio pharmaceuticals
- ❑ Especially, CGT(44% of biologic product clinical trials) drives clinical development growth and is expected to see explosive demand growth when full-scale commercialization enters

[Biologic Product Clinical Trials('20.6, US/EU/JP)]



Biologic CMO Market

- ❑ The biologic CMO market is expected to grow by 14% annually to \$24B in 2023, while CGT CMO leads CMO markets with 25% annual growth



<Source: BIS Research, Frost & Sullivan, Evaluate Pharma, Deloitte, Grand View Research, Visiongain, Roots Analysis, Brandessence, Coherent, 글로벌 Data>

Entering into CGT CMO

SK Inc. secures the future growth engine through preemptive entry into CGT CMO by M&A

Characteristics of CGT CMO

- ❑ **Outsourcing increases due to small and medium-sized pharmaceutical companies-led investment and a clinical demand expansion**
 - FDA receives 200 IND applications annually and is expected to approve 10-20 NDA by 2025
 - Small and medium-sized pharmaceutical companies are highly dependent on CMOs due to a lack of expert facilities/staff
- ❑ **Large CMOs prefer M&A to secure technologies and track records due to the absence of dominant players as an early commercial market**
 - Large CMOs which are financially stable and able to construct facilities also enter CGT CMO through M&A
- ❑ **CGT CMO, which manufactures treatments for rare/incurable diseases, is highly related to ESG value**
 - Difficult to treat compared to chronic diseases and focused on infant/adolescent patients
 - Realize social values through eventual improvement in quality of life

[Leading CMOs' M&A activities in CGT sector]

Company	Target
Catalent	Paragon ('19)
	Novavax Manufacturing Asset ('19)
	MasTHerCell ('20)
	AB Bio Fill/Finish Facility ('20)
	Skeletal Cell Therapy Support ('20)
ThermoFisher SCIENTIFIC	Delphi Genetics ('21)
	Brammer ('19)
	Phitonex ('20)
	Novasep Viral Vector Biz ('21)
	Propel Labs Cell sorting Tech. ('21)

Acquisition of Yposkesi

SK Inc. entered into biologic CMO by acquiring Yposkesi(70% of shares), specializing in CGT CMO in France

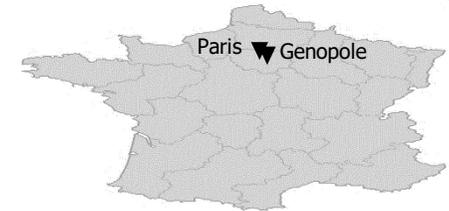
Yposkesi Summary

- **Establishment : 2016**
- **Location : Genopole Biocluster, France**
- **Business : CGT CMO**(including Injection Drug Product), **Process Development, Analytical Service**
- **Facility : Operate of GMP for viral vector-based gene therapy**
 - Provide CGT Full Value Chain(Process development, drug substance, injection, etc.)
 - Secure IP and know-how for the vector(AAV/Lenti) in short supply

Secure the largest capacity in Europe in 2023
when commercial facility operates
- **Shareholders : SK 70%, H-MRB 25%, Bpifrance(PE) 5%**
 - H-MRB, co-founded by institutes for incurable diseases in France
 - * Genethon(CGT Lab), AFM-Telethon(Muscular Dystrophy Association), CECS/I-Stem(Stem Cell Lab)
 - Genethon, secured the best CGT development capability and technology,
had a strategic partnership with Yposkesi
 - * Zolgensma source technology, the world's first gene therapy medication for spinal muscular atrophy

[Genopole Biocluster]

- **Located in Évry and Corbeil-Essonnes(40Km from Paris), France**



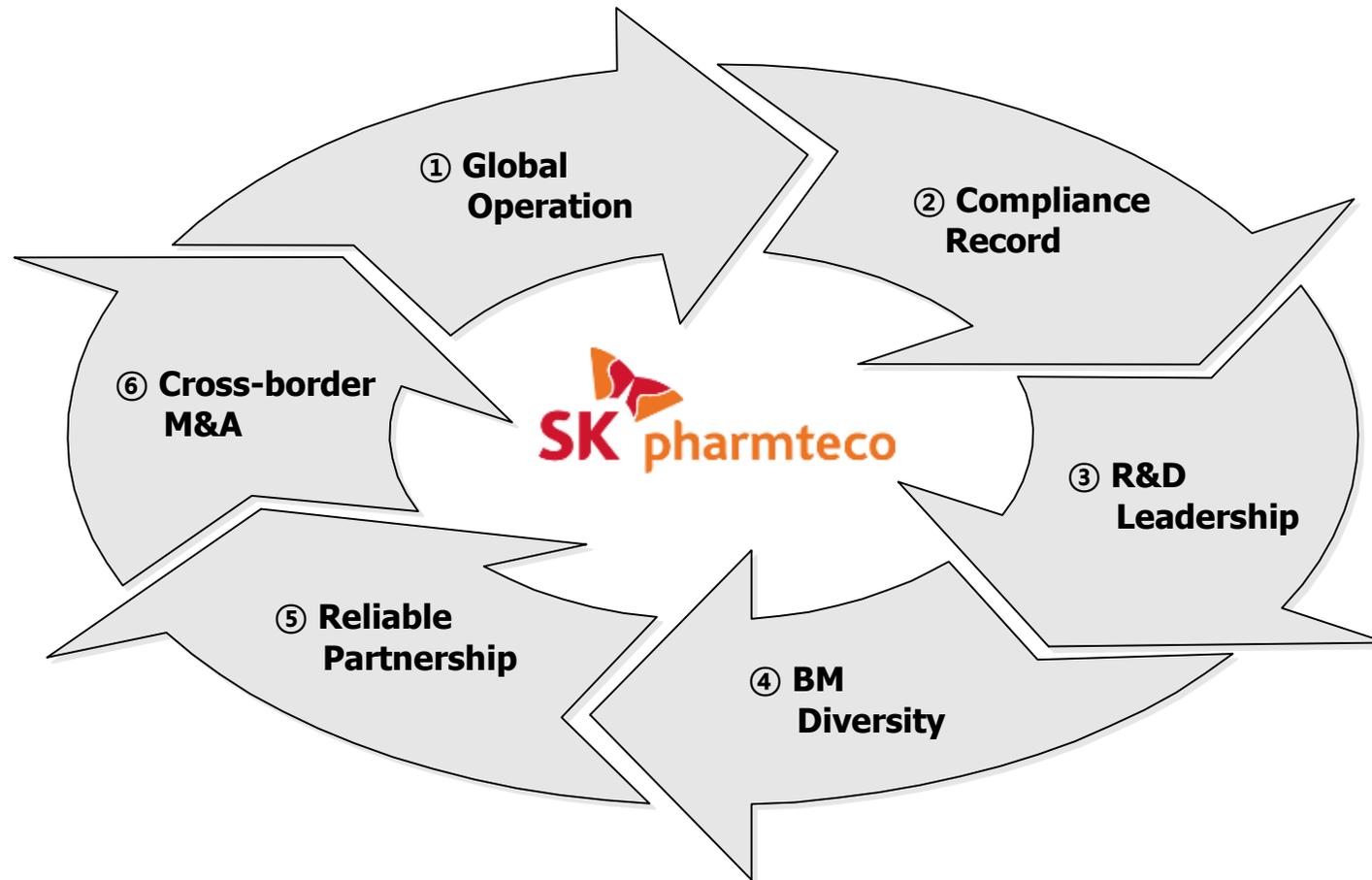
- **Leading Biocluster in France**
 - 83 Pharma., 17 Research Institutes
 - Include large hospitals, educational institutions, University
- **Yposkesi is the only GMP facility in Genopole**

“ Compose optimal business environments such as contract orders, research cooperation, and HR ”

4. Competitive Advantages of SK CMO Business

Competitive Advantages of SK CMO Business

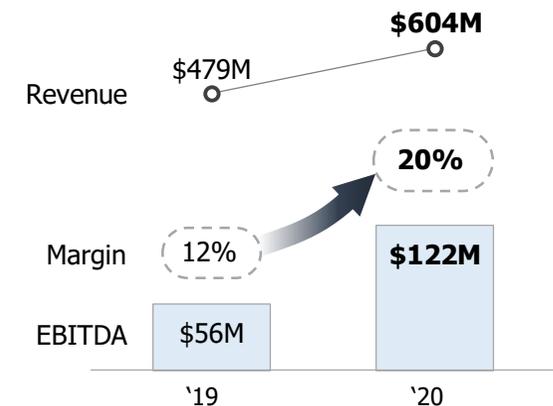
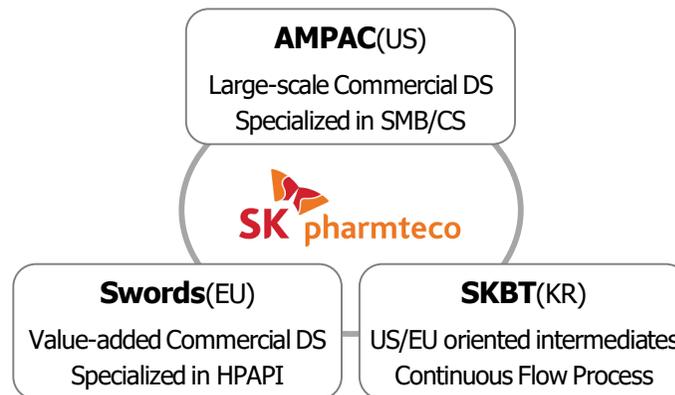
SK Pharmteco established itself as a global top 5 position in chemical API CMO through integrated operation and M&A since 2017. SK Pharmteco drives to be a reliable, sustainable, and profitable global top 5 CMO through organic/inorganic growth in the biologic CMO sector.



Competitive Advantages of SK CMO Business ①

Global
Operation

- ❑ The only pharmaceutical/bio company in South Korea, having HQ in the US, the world's largest pharmaceutical market
- ❑ The majority of executive staffs are local professional managers with over 25 years of experience in pharmaceutical/CMO industry
- ❑ Integrated operation of three facilities in the US, Europe, and Korea is improving response-ability to customer demand and profitability



Competitive Advantages of SK CMO Business ②

Compliance Record

❑ **SK Pharmteco operates FDA Training Program since 2014**

- FDA uses AMPAC CA facility as a training place for CMO on-site inspection for new examiners every year to understand the latest technology and facility operation trends related to process development, quality control, and commercialized manufacturing.

❑ **All registered the US/Europe/Korea facilities with the FDA/EMA as cGMP or EU-GMP**

- Swords facility in Ireland, acquired by SK in 2017, is a new drug manufacturing facility of BMS
- The recently constructed Sejong facility in Korea has also secured FDA approval

❑ **A number of commercial manufacturing experiences in controlled substances (CNS, pain relief, etc.), rapidly growing in the US**

- AMPAC CA facility is the largest in the West, and VA facility, which belonged to Boehringer Ingelheim in the past, has much experience in controlled substances

❑ **SK Pharmteco secures 1st Supplier Position with an excellent track record for multiple pipelines**

- 29 PAI(Pre-Approval Inspection) over the past decade & 6 recent PAIs waived

Competitive Advantages of SK CMO Business ③

R&D Leadership

- ❑ **Four global R&D labs with nearly 160 outstanding employees in the US/EU/KR**
 - Internalize development capability to liaise between R&D and commercial manufacturing

- ❑ **Technology-oriented company in small molecule manufacturing**
 - Global leader in Continuous Flow & SMB(US, KR)
 - High Potency manufacturing & Particle Engineering expertise(US, EU)
 - Experienced-based leader in Energetic Chemistry(US)
 - Engineered Chemical Solutions

Competitive Advantages of SK CMO Business ④

BM Diversity

- ❑ **SK Pharmteco is the only CMO in small molecule sector that expanded to CGT except the top 3 players**(Lonza, TFS, and Catalent)
 - CGT is advanced therapy medicine with high margin/small quantity production
- ❑ **Entering into Aseptic Fill & Finish BM with the highest GMP level through the acquisition of Yposkesi**
 - Aseptic fill&finish business is possibly linked to both chemical and biologic API products
 - SK Pharmteco plans to provide fully integrated CMO service including DP(Drug Product) after additional M&A in the US
- ❑ **Skyrocketed sales growth in an analysis service with high margin**
 - SK Pharmteco provides an analysis service(AMPAC Analytical) to 46 customers in small/large molecule sectors
 - Recorded 55% sales growth rate and about 40% operation margin during the last 3 years
- ❑ **Manufacturing/sales of pharma products suffering supply shortage**
 - SK Pharmteco supplies the approved pharma products(anticancer medicines etc.) with high margin(30~50%)

Competitive Advantages of SK CMO Business ⑤

Reliable Partnership

- ❑ **80% of revenue comes from LTA based on Strategic Partnership**
 - Recording more than \$100M sales volume from core customers(anticancer medicines, antidiabetic medicines, etc.)
 - Positioned as a main supplier of major pharmaceuticals in the US/Europe/Asia

- ❑ **Securing 1st supplier position and locked-in customers through geographically advantageous location(Western US) and fine process development capability**
 - For L/O of bio-venture products to large pharmaceutical companies, there is no need to develop separate commercial processes and document additional CMC
 - Supporting a large global pharmaceutical company's commercializing process for innovative anticancer medicine to minimize clinical/approval periods

- ❑ **The only CMO joined Phlow project in the US**
 - SK Pharmteco plans to supply the Strategic Active Pharmaceutical Ingredients Reserve(SAPIR) and operate new facilities for manufacturing by using AMPAC VA facility
 - * Phlow project seeks to establish supply chain for essential medicines

- ❑ **Executing strategic investment for capacity competitiveness for LTA customers**
 - Optimizing capital expenditures based on cost effectiveness of each facility, platform technology, etc.
 - Upgrading facilities in CA, Sejong, and Swords is in progress by own investment and partners' funding

Competitive Advantages of SK CMO Business ⑥

Cross-border M&A

- ❑ **The only company in Korean bio industry that has succeeded in competitive overseas buy-out deals**
 - The total investment cost is over \$1B, and all deals were the acquisition of 100% or majority stake
 - Drive successful M&A through a global expert network in the CMO industry

- ❑ **Experiences that lead successful PMI in the short term after the acquisition**
 - SK Pharmteco operates the global PMI TF for Day1 Operation after an acquisition, minimizing the usual PMI period
 - Extensive global site operating experiences through Town Hall meetings with local employees, etc.
(ex. Yposkesi's Work Council exceptionally presents a positive feedback on SK's investment, unlike other deals in France)

- ❑ **Built a global investor network for additional M&A execution in biologic and DP sectors**
 - Continuous deal sourcing from major CMO investors, such as a global PE or a specialized IB in a pharmaceutical or a CMO sector
 - SK has secured a priority position of CMO M&A opportunities based on successful cross-border M&A experiences

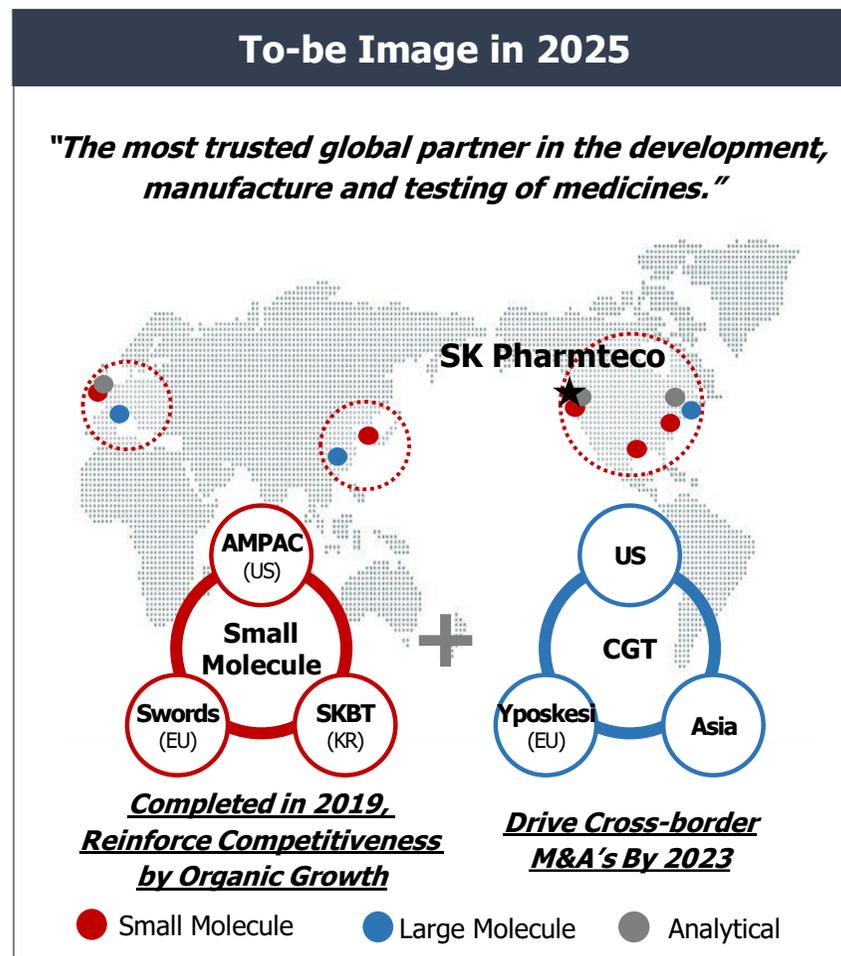
5. To-be Image

To-be Image

SK Inc. will complete to establish small/large molecule CMO facilities in the major market through organic/inorganic growth and secure Global Top 5 CMO position in 2025

Growth Strategies

- 1 Continuously expand CGT CMO value chain**
 - Enter into the US CGT CMO through M&A
 - Create synergy through selective entry in DP sector
- 2 Enhance competitiveness with new drug development partners through organic investment**
 - Continue to invest in R&D for core specialized technologies
 - Strategically expand capacity to secure flexibility
- 3 Maximize the value through BM expansion and digitalization**
 - Deliver a solid cash flow through expanding analytical service by region
 - Apply digitalization across all processes(order/production/SCM)



Thank you