

# *Global Premier Biologics Platforms to Enable and Expedite Innovations*

*2020 Interim Result  
(2269.HK)*

**August 2020**



**WuXi Biologics**  
Global Solution Provider

# Forward-Looking Statements

This presentation may contain certain “forward-looking statements” which are not historical facts, but instead are predictions about future events based on our beliefs as well as assumptions made by and information currently available to our management. Although we believe that our predictions are reasonable, future events are inherently uncertain and our forward-looking statements may turn out to be incorrect. Our forward-looking statements are subject to risks relating to, among other things, the ability of our service offerings to compete effectively, our ability to meet timelines for the expansion of our service offerings, and our ability to protect our clients’ intellectual property. Our forward-looking statements in this presentation speak only as of the date on which they are made, and we assume no obligation to update any forward-looking statements except as required by applicable law or listing rules. Accordingly, you are strongly cautioned that reliance on any forward-looking statements involves known and unknown risks and uncertainties. All forward-looking statements contained herein are qualified by reference to the cautionary statements set forth in this section.

## Use of Adjusted Financial Measures (Non-IFRS Measures)

To supplement the Group’s condensed consolidated financial statements which are presented in accordance with the IFRS, the Company has provided adjusted net profit, adjusted net profit margin, adjusted EBITDA, adjusted EBITDA margin and adjusted basic and diluted earnings per share as additional financial measures, which are not required by, or presented in accordance with, the IFRS.

The Company believes that the adjusted financial measures are useful for understanding and assessing underlying business performance and operating trends, and that the Company’s management and investors may benefit from referring to these adjusted financial measures in assessing the Group’s financial performance by eliminating the impact of certain unusual, non-recurring, non-cash and/or non-operating items that the Group does not consider indicative of the performance of the Group’s core business. These non-IFRS financial measures, as the management of the Group believes, is widely accepted and adopted in the industry in which the Group is operating in. However, the presentation of these non-IFRS financial measures is not intended to be considered in isolation or as a substitute for the financial information prepared and presented in accordance with the IFRS. Shareholders of the Company and potential investors should not view the adjusted results on a stand-alone basis or as a substitute for results under IFRS. And these non-IFRS financial measures may not be comparable to similarly-titled measures represented by other companies.



**01**

**2020 Interim Results**

---

**02**

**Leading Industry Trends  
Favoring WuXi Biologics**

---

**03**

**Financial Overview**

---

**04**

**Outlook & Catalysts**

---

**05**

**Appendix**

---

**224→286**

Integrated Projects YoY

**38**

New Projects in 1H

**15→19**

Late Phase Projects YoY

**US\$9.5B**

Total Backlog

**280,000L+**

Capacity after 2023

**5,694/2,453**

Employees/Scientists



**1.6→1.9B**

Revenue (RMB)

**521.5→734.0M**

Adj Net Profit (RMB)

**21.0%**

Revenue YoY Growth

**40.7%**

Adj Net Profit YoY Growth

**40.5%**

Gross Profit Margin

**37.8%**

Adj Net Profit Margin



01

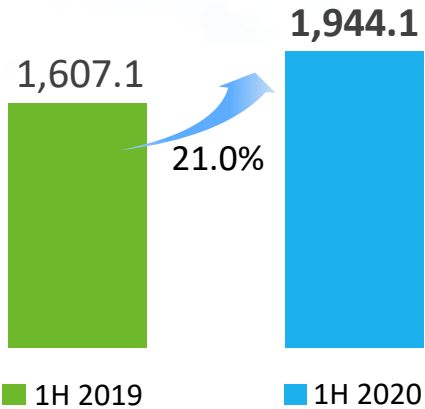
# 2020 Interim Results



# Financial Highlights: Record Revenue and Earnings Growth

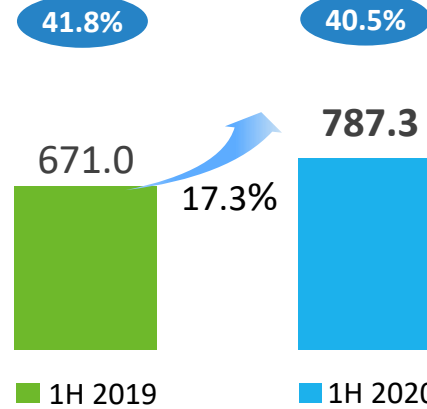
## Revenue

RMB  
(mm)



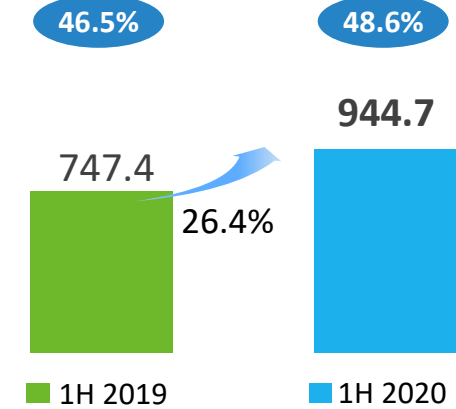
## Gross Profit

GP Margin



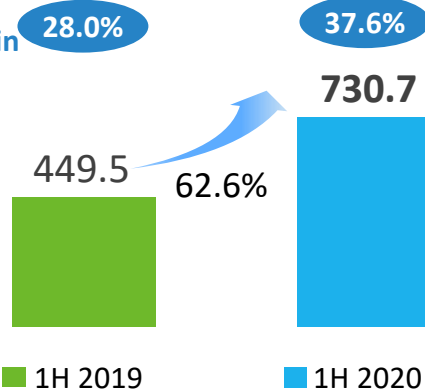
## Adj EBITDA

Adj  
EBITDA  
Margin



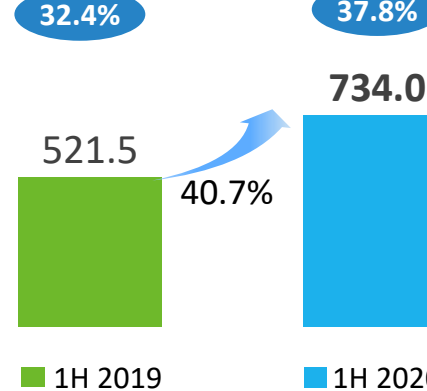
## Net Profit

NP  
Margin



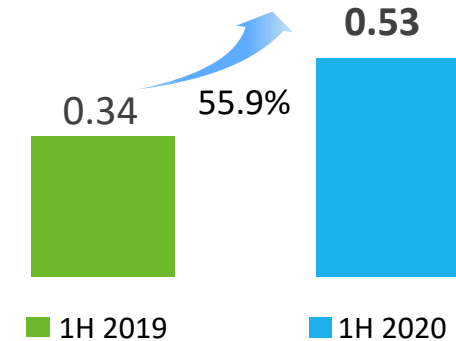
## Adj Net Profit

Adj NP  
Margin



## Diluted EPS

RMB



# Key Financials

## Available Funds

- Available Funds approx. RMB **5,376** million as at June 30<sup>th</sup>, 2020
- HK\$ **6,120** million raised in July 2020 to support COVID-19 business and expansion of U.S. facilities
- Available funds approx. RMB **11.0** billion as of July 31<sup>st</sup>, 2020

## LOAN

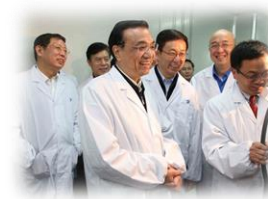
- Approx. RMB **2,950** million borrowings as at June 30<sup>th</sup>, 2020
- Maintains bank credit facilities of around RMB **2.5** billion for future cash needs
- Operating cash flow of RMB **431** million, **94.1%** increased YoY

## CAPEX

- CAPEX spending amounted to RMB **2.7** billion in 1H 2020
- 2020 CAPEX approximately RMB **5** billion, mainly for capacities expansion in Europe and U.S.

## Our Mission

*To accelerate and transform the discovery, development and manufacturing of biologics through a comprehensive open-access platform, enabling our global healthcare partners and benefiting patients worldwide*



## Our “Follow-the-Molecule” Integrated Solution Model

*Our customers’ demand for our services increases as their biologics advance through development and ultimately to commercialization, which allows our revenue from each project to grow geometrically as the project advances through the biologics development cycle*

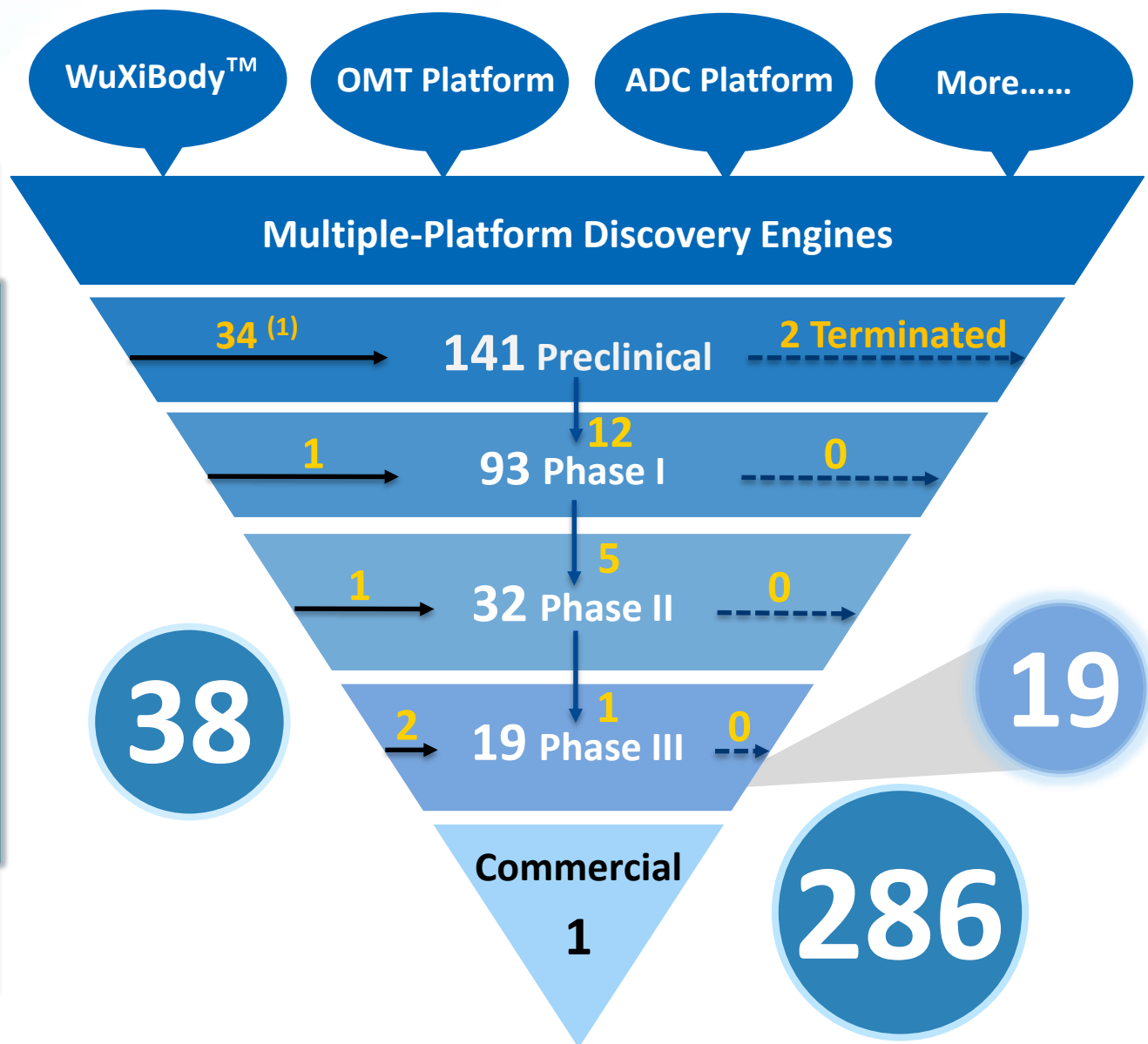
### Revenue from each project increases with its stages

Biologics Development Process	Typical Duration	Typical Revenue
Pre-IND		
Drug Discovery	2 Years	US\$1.5-2.5 mm (Milestone fee ranges from US\$ 10-100 mm Royalty fee ranges from 3% to 5%)
Pre-Clinical Development	2 Years	US\$4-6 mm
Post-IND		
Early-Phase (Phases I & II) Clinical Development	3 Years	US\$4-6 mm
Late-Phase (Phase III) Clinical Development	3-5 Years	US\$20-50 mm
Commercial Manufacturing	Annually	US\$50-100 mm annually



# 1H 2020 Pipeline Highlights

- **38** molecules added into pipeline despite pandemic. Total **286** as of June 30, 2020.
- **3** projects added to Phase III
- **4** external projects at different stages transferred in 1H 2020
- US\$ **24.1** million milestone revenue in 1H 2020
- Best **timeline** and **execution** further strengthen market position, fundamentals remains strong

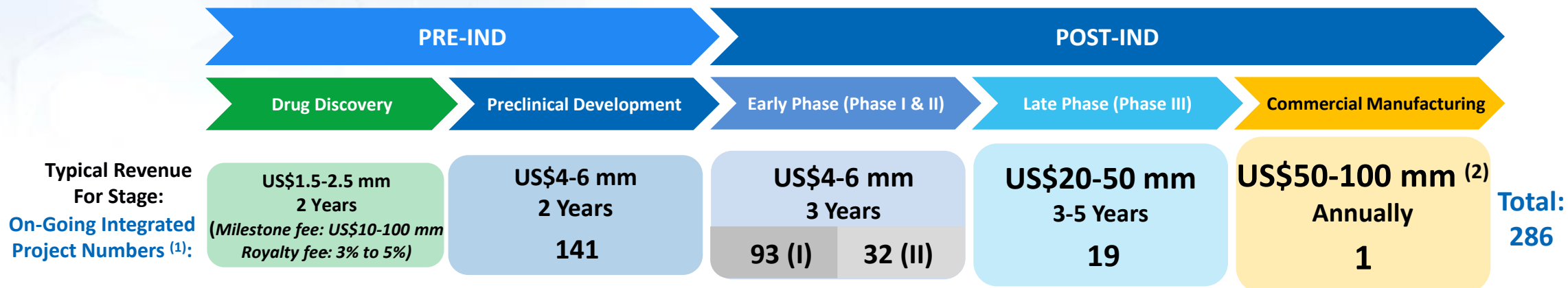


Notes:

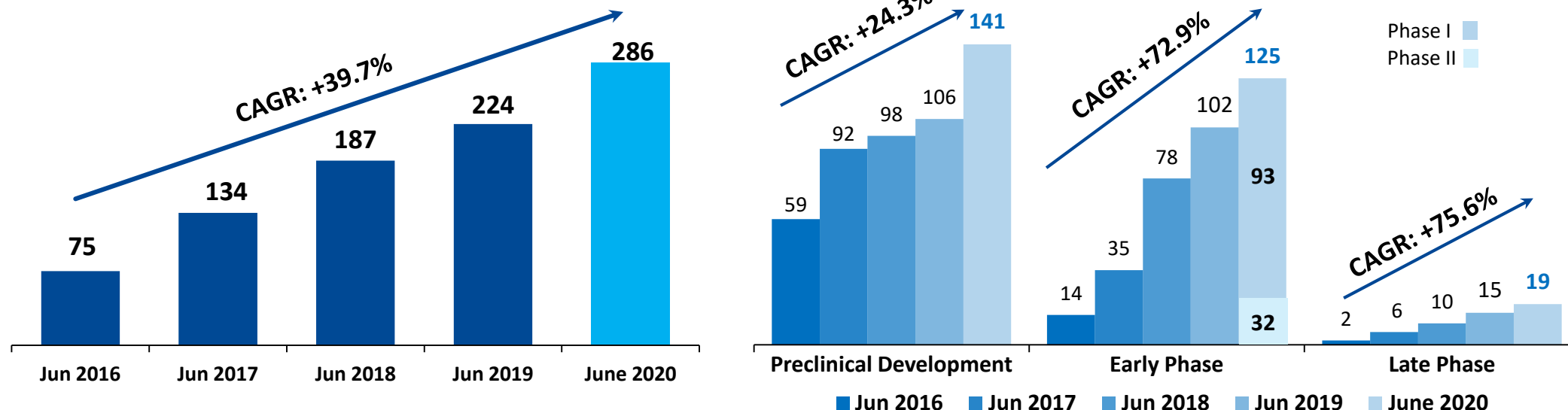
1. As of June 30, 2020.

2. The arrows in black are the projects newly added from outside; the arrows in blue are the projects progressing from earlier stage thanks to our Follow-the-molecule strategy; the dashed arrows are terminated projects

# Solid Business Progress – Integrated Projects



## No. of Integrated Projects <sup>(1)</sup>



### Notes:

1. Integrated projects are defined as projects requiring services for multiple stages during biologics development process
2. Estimated CMO revenue when a biologic drug reaches its peak sales. A biologic drug typically reaches peak sales after a ramp-up period

# Strong Backlog Growth Underpins Future Performance

- Total backlog jumped to **US\$9.5 bn**, fundamentals remain strong despite global COVID-19 pandemic

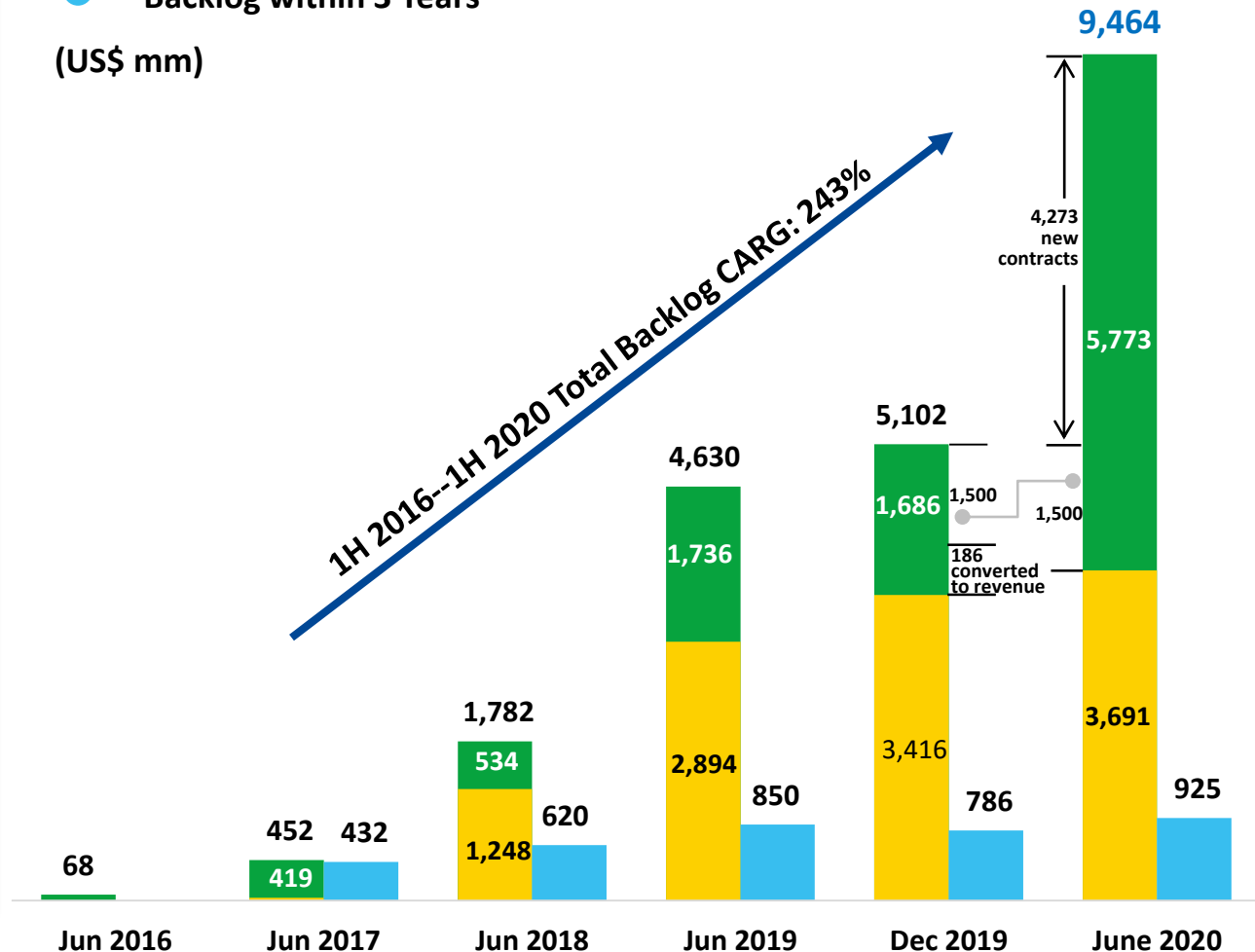
- Service backlog increased **232%** to **US\$5.8 bn** compared with 1H 2019, mainly attributed to long-term vaccine CMO contract and surging COVID-19 projects

- Upcoming potential milestone fees\* up to **US\$3.7 bn**, continue to improve margin profile

- Backlog within 3 years maintained high visibility and solid growth in 1H 2020

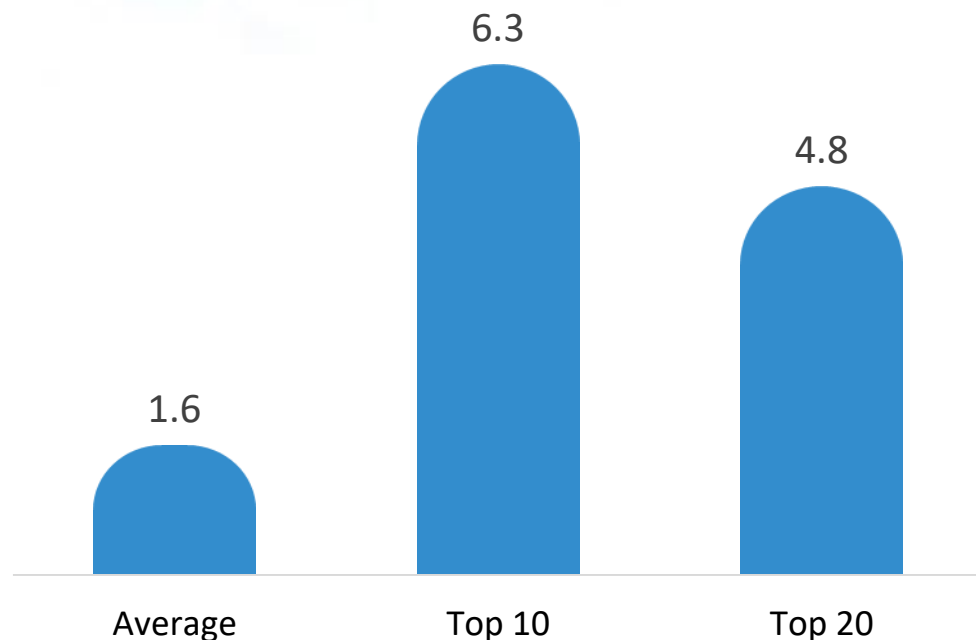
- “Follow-the-Molecule” strategy clearly demonstrated effective

- Service Backlog
  - Upcoming Potential Milestone Fees\*
  - Backlog within 3 Years
- (US\$ mm)

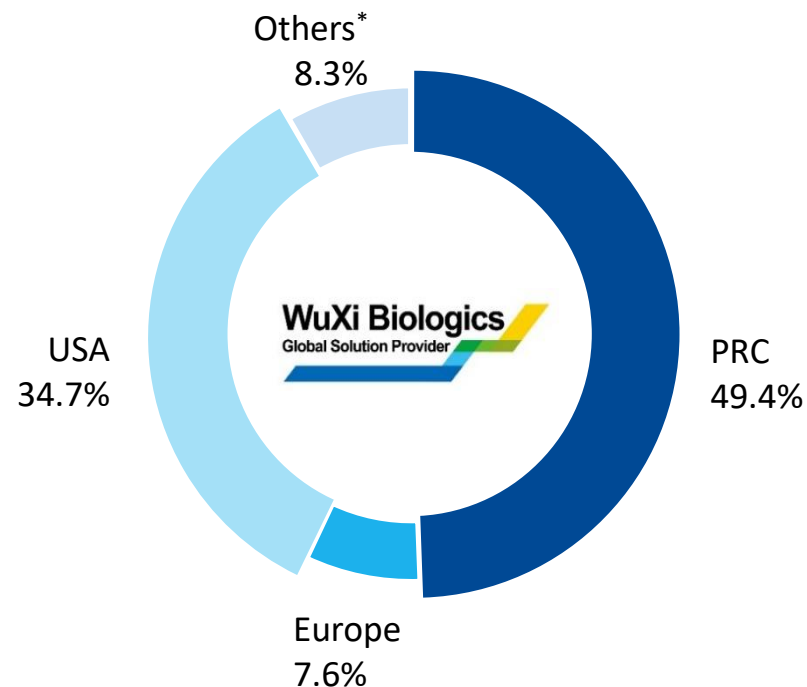


# “Follow-the-Molecule” Wins More Trust from Existing Clients

No of Integrated Projects  
per Customer



Geographic Snapshot  
by Customer No.



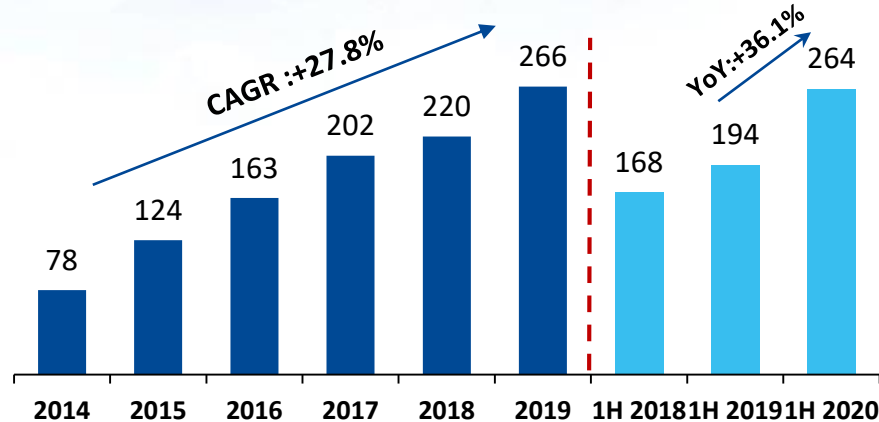
- Multiple leading platforms, best execution and track record increase **stickiness** of biologics CDMO
- “Follow-the-Molecule” with proven track record improved winning rate of new projects from existing clients: **80%+**
- Customer base further diversified , **U.S.** and **China** are still two most important markets

Note:

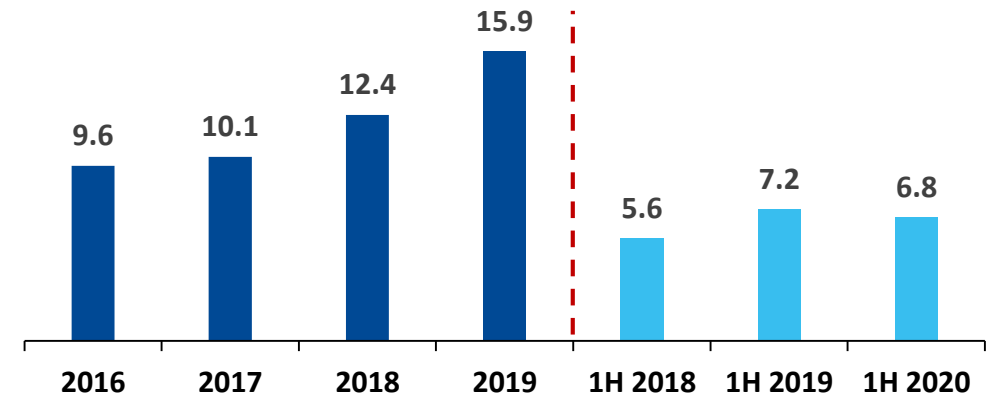
\* Others is the global market, which excludes USA, EU and PRC

# “Follow-the-Molecule” Drives Customer Growth and Revenue Diversification

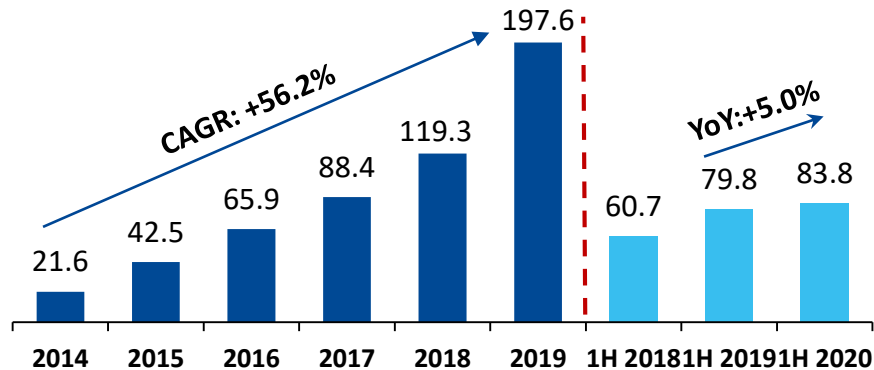
**Number of Customers Serviced in Each Period <sup>(1)</sup>**



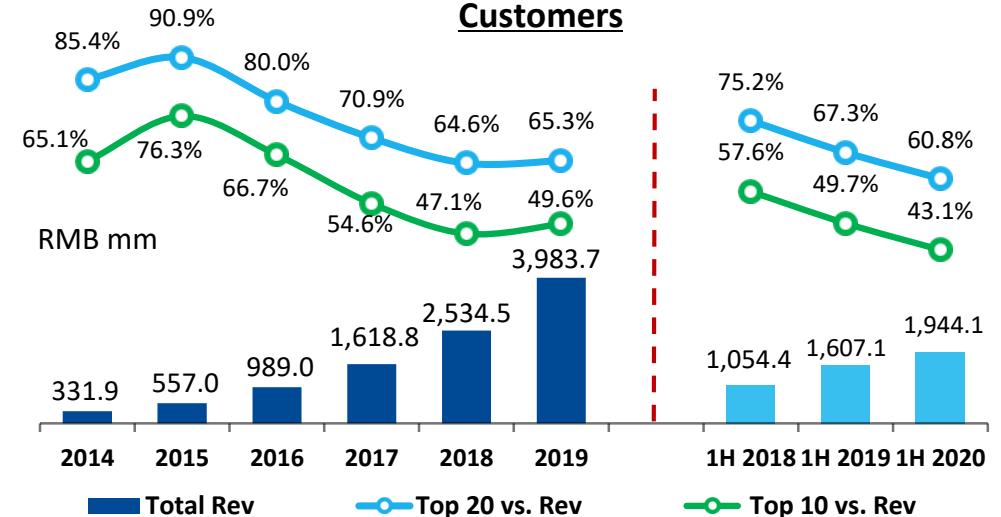
**Average Revenue per Project (RMB mm)**



**Average Revenue per Customer among the Top 10 Customers in Each Period (RMB mm)**



**Revenue % of the Top 20 and the Top 10 Customers**



Note:

1. Number of customers refer to those who incurred revenue during the reporting period.



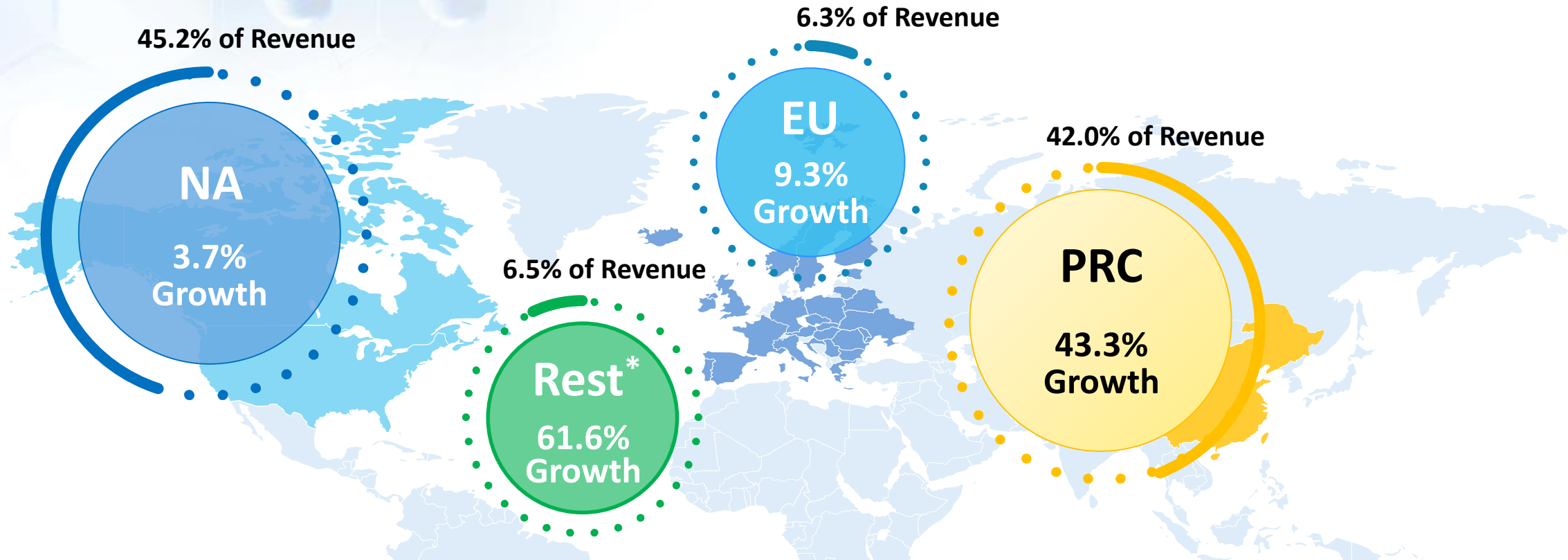
# Robust Global Network Ensures Success of “Follow-the-Molecule”



# Global Manufacturing Capacity (280,000L+)

Site #	DS Capacity	GMP Ready	Location	Comments
MFG1	7,500L fed-batch/perfusion	2012	Wuxi	Commercial
MFG2	28,000L fed-batch/2,000L perfusion	2017	Wuxi	Commercial
MFG3	5,200L fed-batch/1,500L perfusion	2018	Shanghai	Clinical/Commercial
MFG4	10,000L fed-batch/CFB	2019	Wuxi	Clinical/Commercial
MFG5	60,000L fed-batch	2021	Wuxi	Commercial
MFG6	6,000L (6 x 1,000L) perfusion	2022	Ireland	Commercial
MFG7	48,000L fed-batch	2022	Ireland	Commercial
MFG8	48,000L fed-batch	2022	Shijiazhuang	Commercial
MFG9	6,000L fed-batch/perfusion	2023	Wuxi	Clinical/Commercial
MFG10	4,000L fed-batch/500L Perfusion	2023	Singapore	Clinical/Commercial
MFG11	8,500L fed-batch	2023	Worcester, MA	Clinical/Commercial
MFG12	48,000L (12 x 4,000L) fed-batch	2023	Chengdu	Clinical/Commercial
MFG13	2x1,000L Viral Manufacturing	2021	Hangzhou	Clinical/Commercial
MFG14	300L/2,000L microbial	2021	Hangzhou	Clinical/Commercial
MFG18	2,000L fed-batch	2021	Cranbury, NJ	Clinical

# Business Progress by Regions



North America (NA) still the **most important** market. Growth slowed due to the delay of regulatory inspections and U.S. clinical trials. **12** new projects in U.S. added despite BD challenges. Continued **investments** and **new initiatives** to enable U.S. customers

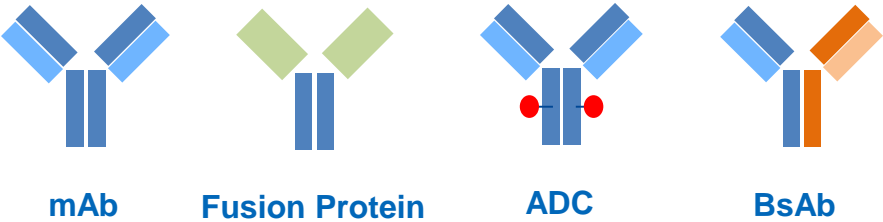
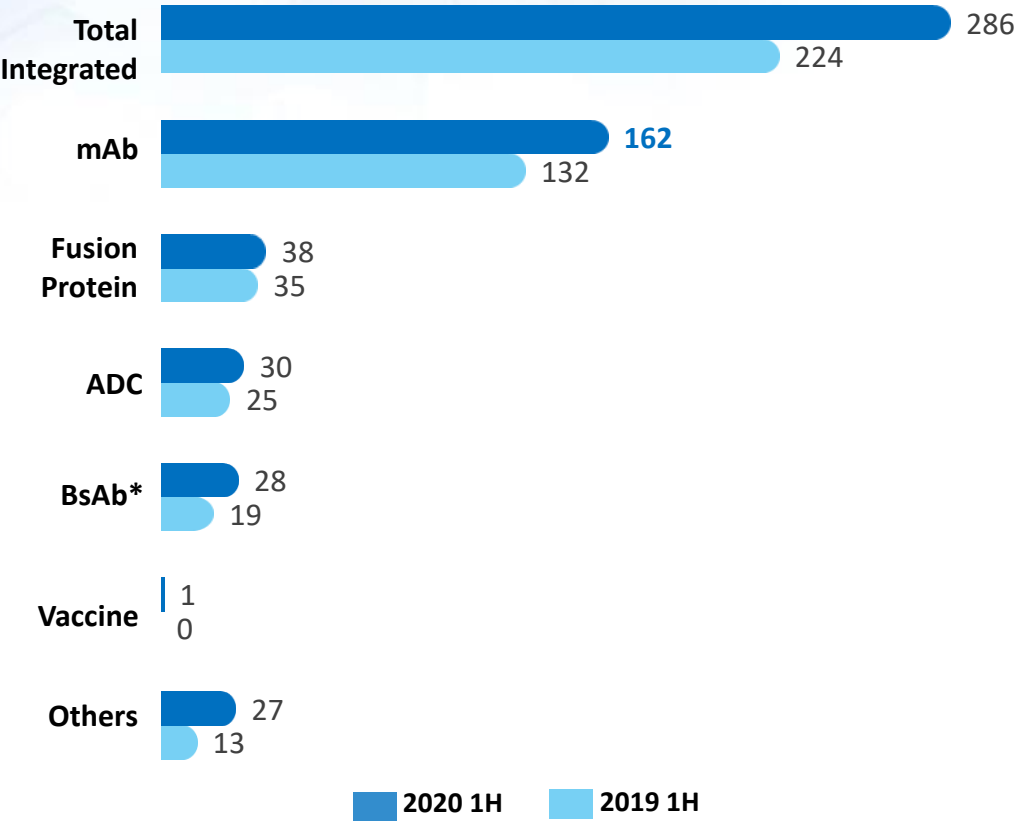


Chinese market showed an outstanding growth of **43.3%**, due to fast recovery from COVID-19. **19** new projects added during 1H 2020. Public health crisis may spur more **R&D investments** and favorable environment for biologics industry



Rest of the Asia including Korea, Japan, Singapore and Australia showed fastest growth of **61.6%**. Our industry leading **timeline** and **execution** are winning new clients from established markets. One-stop platforms are enabling customers to file IND at the pace of pandemic to fight against COVID-19

# Rich Pipeline across All Biologics Formats



**114 First-in-class programs**



One of **the largest** portfolios of complex proteins consisting of bispecifics, antibody drug conjugates (ADCs) and fusion proteins



More **ADCs** and **Bispecific** projects were added, in line with global biologics innovation trend



All demonstrating **globally** leading technical capabilities

Note:  
1. Bispecific Antibody (BsAb) Included both WuXiBody™ projects and non-WuXiBody™ projects

# Aggressive Talent Growth Propels Business Success

5,694

Employees as of June 2020.

Expected to reach around 6,600+ by the end of 2020

## Rapid Expansion of Talent Base

2,453

One of the largest biologics development teams

8%

Employees holding Ph.D. or equivalent

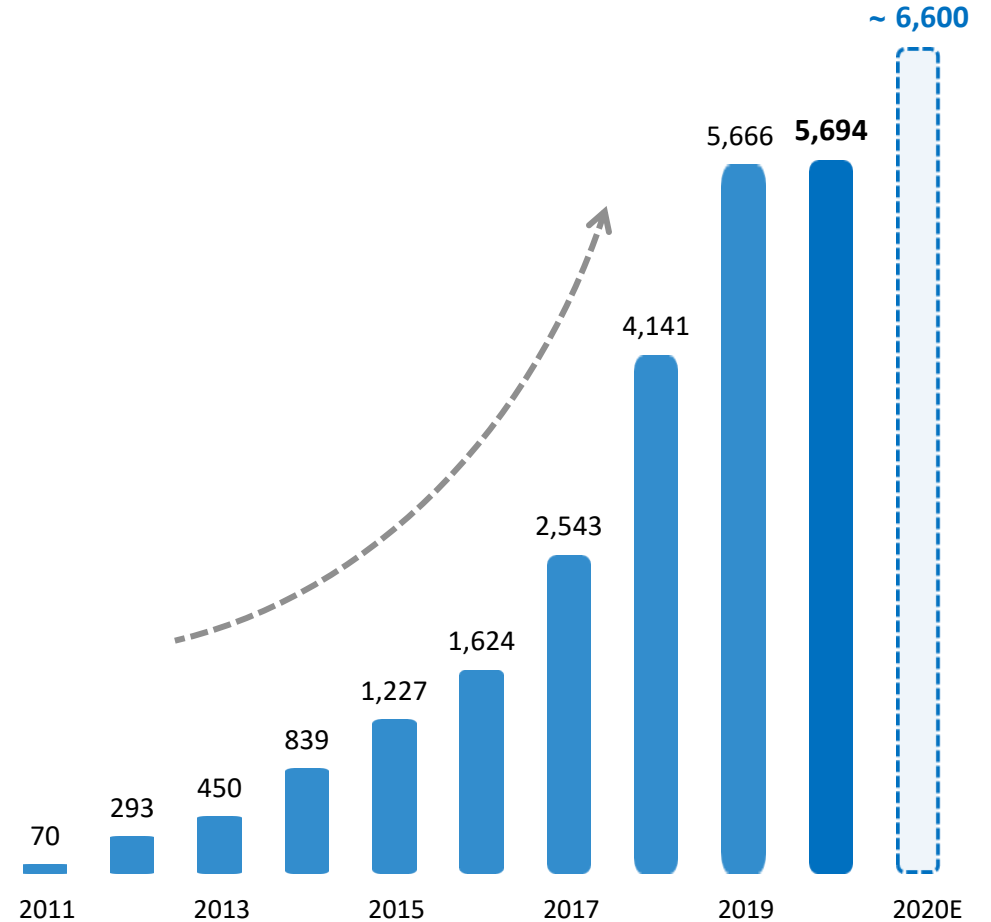


**Dr. William (Bill) Aitchison**

SVP, Global Manufacturing

Seasoned Bio-manufacturing Expert

- **30+** years of development and manufacturing experience from global pharmaceutical companies (vaccine, mAbs, proteins and small molecules)
- Strong strategic and operational expertise
- Former SVP at GSK/TESARO and Sanofi Pasteur, VP at Wyeth



1H 2020 Talent retention rate >90%, Key talent: ~94%



**“A pessimist sees the difficulty in every opportunity;  
an optimist sees the opportunity in every difficulty”.**

***“We are making critical contributions to the treatment and prevention of COVID-19 globally”***

**COVID 19 mAb  
Work in Progress**

- **10+** Programs from US/EU/China signed
- **~US\$320 mm** contract including **US\$116 mm** from VIR/GSK for large scale DS manufacturing of COVID-19 mAbs
- **~70%** winning rate YTD

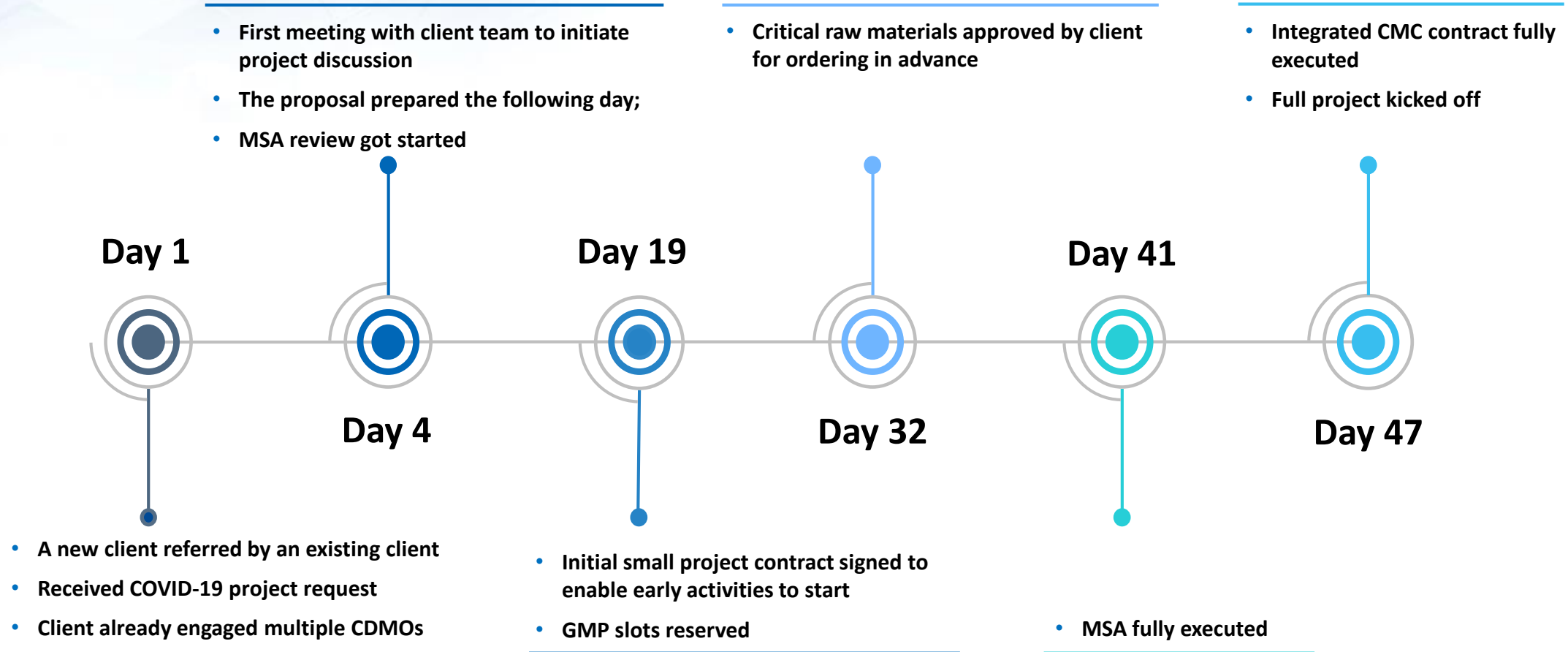


**COVID 19 mAb  
Potential Contracts**

- **80+** inquiries
- **24** companies and **27** programs in active negotiations

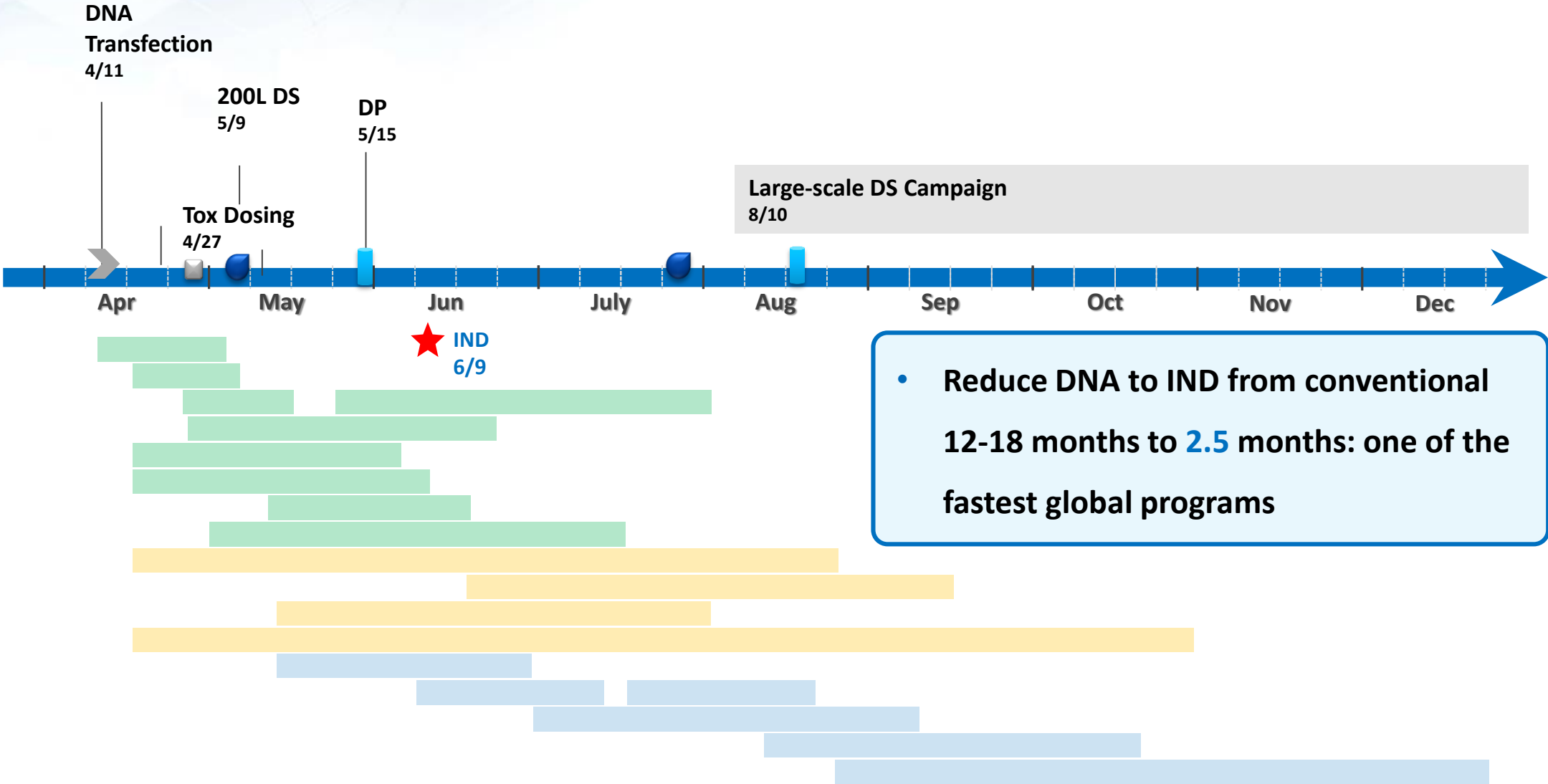


# From One Year to 47 Days: Capturing COVID-19 Opportunities



**From lead to contract execution and project kick off in 47 days!**  
**From Lead to IND potentially in 5 months**

# COVID-19 Neutralization Mab Development at the Speed of Light



# Innovative Remote Solutions Developed within One Month

## Common Technical Solutions

- Video Conference
- Live Tour



## Specific Technologies

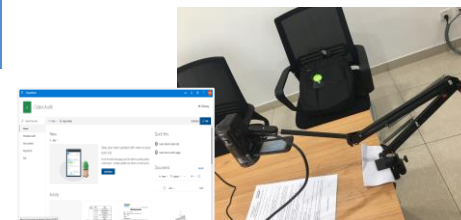
### Remote Due Diligence

- Video on Demands
- Project Specific Discussions



### Remote GMP Audit

- Audit Doc Online Review
- Audit Paper Live Review



### Remote Person-in-Plant

- Surveillance Camera
- Video Transmission Box
- Access to Process Historian



# COVID-19 Impact Diminished - Multiple Catalysts Ahead



Task Force led by CEO and Business Continuity Plan (BCP) demonstrated effective. No projects delayed. 100% staff back to work. None of 5,694 staff infected

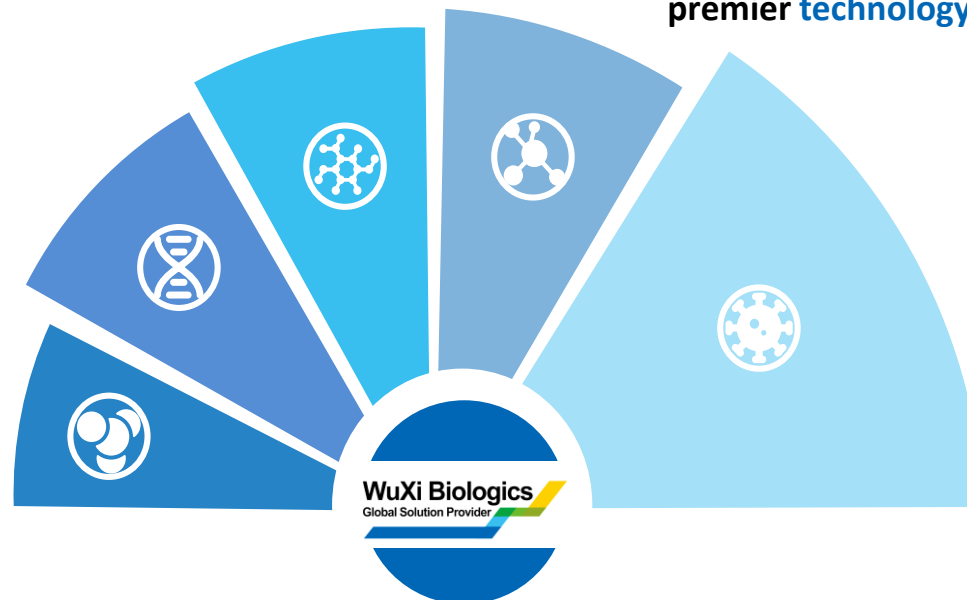


- FDA pre-approval inspection scheduled in Q1 2020 would likely be deferred to late 2020 delaying CMO revenue
- 1 month loss of operation



- Among the 1<sup>st</sup> tier global CDMO enabling 10+ COVID-19 programs
- 3 INDs filed for COVID-19 projects in 1H 2020

- Work at the pace of pandemic: expect to file IND for neutralizing antibody within 3-5 months
- Playing a key role in the global fight against COVID-19 with best-in-industry timeline and premier technology platforms



Fundamentals of business remain very strong. Despite the temporary impact of COVID-19 in 1H, 2020 will still witness significant growth





## Business Outlook on COVID-19

### Minus

- Limited interactions with clients: implemented e-visit, e-Audit, a-PIP systems
- Delaying milestone revenue, FDA inspection and manufacturing lots: ~US\$100 mm revenue delay to 2021

### Plus

- Improved binding with clients: more recognition
- COVID-19 programs: **US\$80+ mm** revenue in 2020 and **US\$150+ mm** 2021
- More large pharma expanding collaborations due to COVID-19

## Improved Client Stickiness due to COVID-19



**Rapid responses and sound BCP plan: no milestone missed for any integrated projects, winning acclamations from clients all over the world**

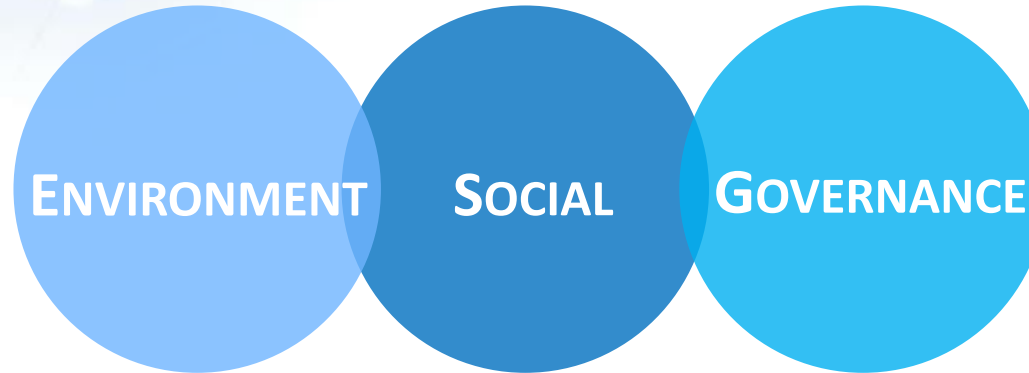
**Completed 3 process validation/PPQ campaigns during COVID-19 outbreak: tenacity and resilience demonstrated**

**Strong execution fully manifested during COVID-19**

**Shared COVID-19 fighting best practice with the global clients**

**Purchased masks from China to support global clients**

# Global ESG Standard: AA MSCI Rating



- Strictly comply with the Environmental Protection Law and other EHS regulations
- MSCI **AA ESG** rating and **BEST ESG** awards of Institutional Investor (All-Asia) in 2020
- Disposable bioreactors consume **90%** less water and energy and eliminate **100%** detergent during cGMP production
- **Least** resources consumed, **lower** emissions and less waste produced



- Hazardous waste disposable optimize
- Boiler low nitrogen discharge, 2/3 NOx discharge reduction
- NHMC (Non-Methane Hydrocarbons) emission reduction



- Re-use of waste water to cooling system
- waste water to be treated can be reused for landscape and greening



02

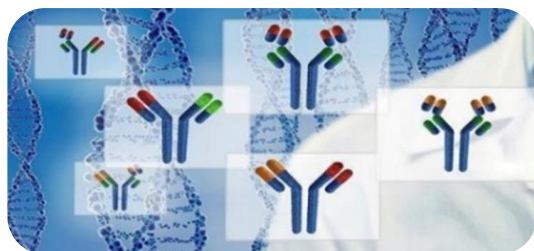
# Leading Industry Trends Favoring WuXi Biologics

# Bispecifics May Be the Next Wave - WuXiBody™



Leading Edge  
Technology

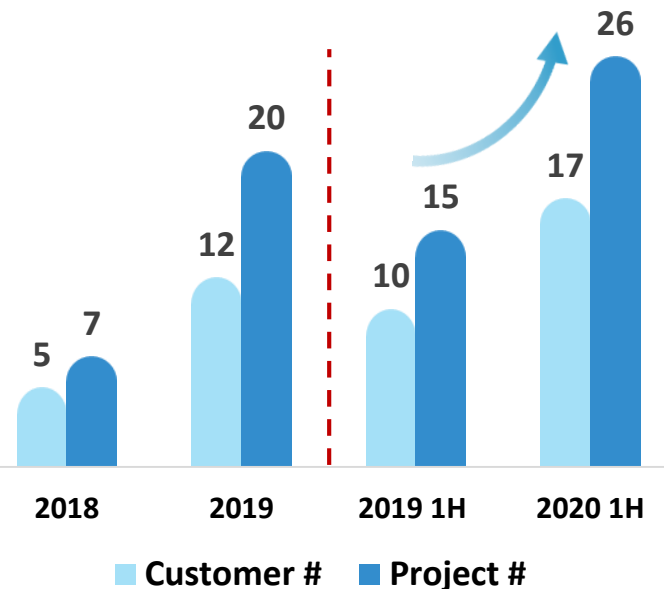
Empower to discover best  
or first-in-class molecules



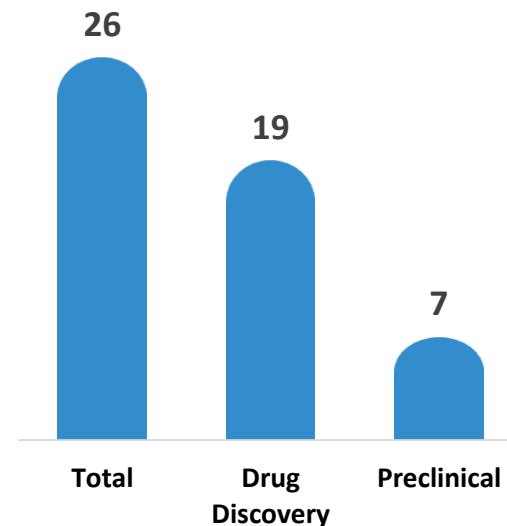
**WuXiBody™ Bispecific**  
Antibody Technology Platform



Out-licensed Projects for  
WuXiBody™



WuXiBody™ Development  
Progress

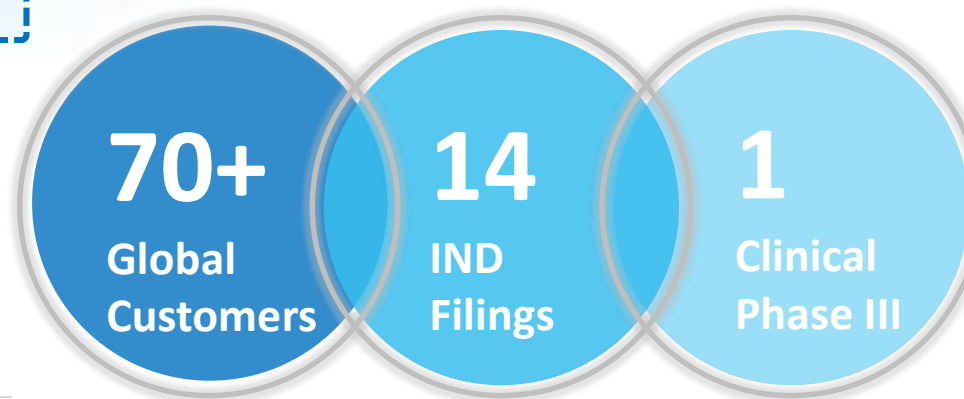
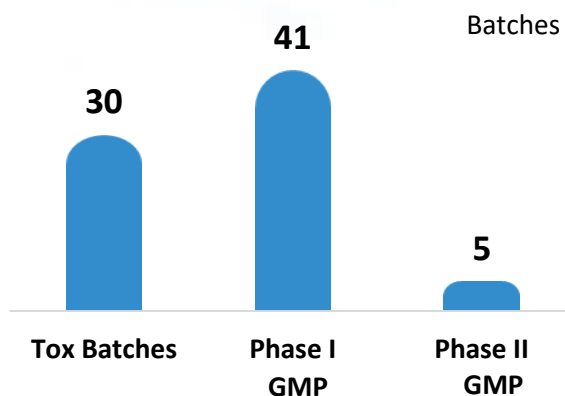


- Strong adoption of WuXiBody™ technology since its launch in 2H 2018
- 7 projects moving to preclinical to demonstrate state-of-the-art technology
- 2-3 WuXiBody™ projects will be expected to file IND in 2020

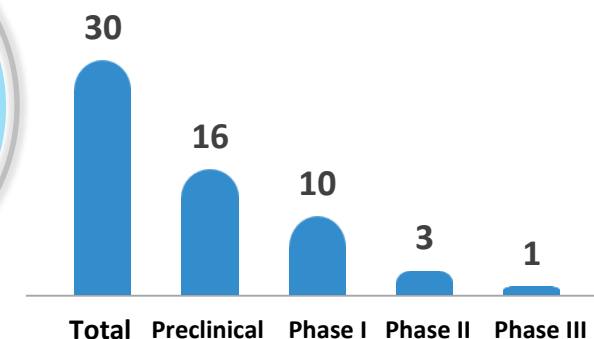


# ADC Drives Additional Growth

## WuXi Biologics ADCs Manufacturing by 1H 2020



## ADCs Development Progress



## Selected Global ADCs Partners

Ambrx

bioatla  
BioAcceleration™  
for protein therapeutics

SILVERBACK™  
THERAPEUTICS

Genentech  
IN BUSINESS FOR LIFE

H3  
Biomedicine  
Human. Health. Hope.

MedImmune

薬の未来を創造する  
NanoCarrier®

NBE therapeutics  
Innovating medicines

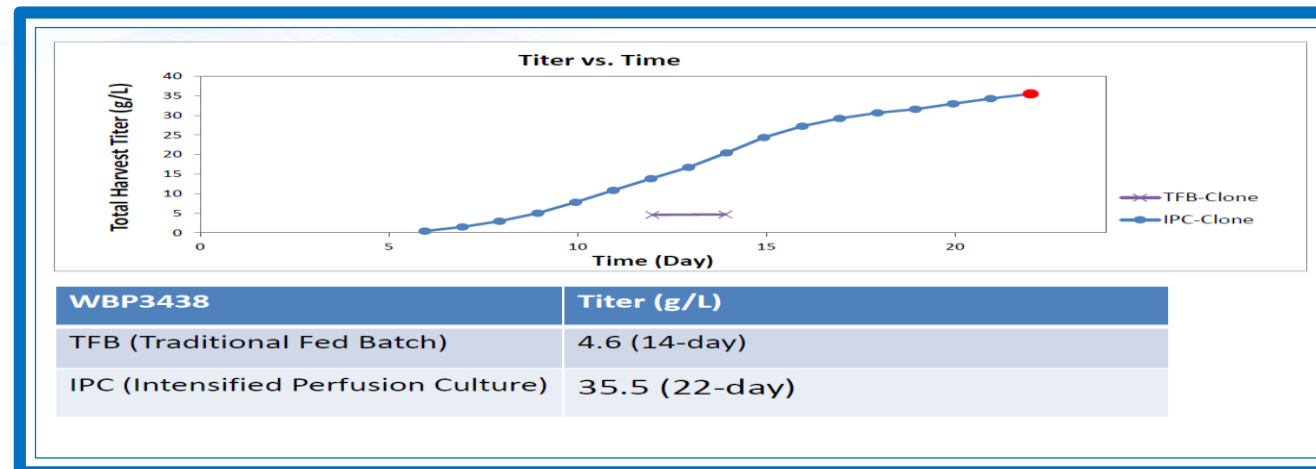
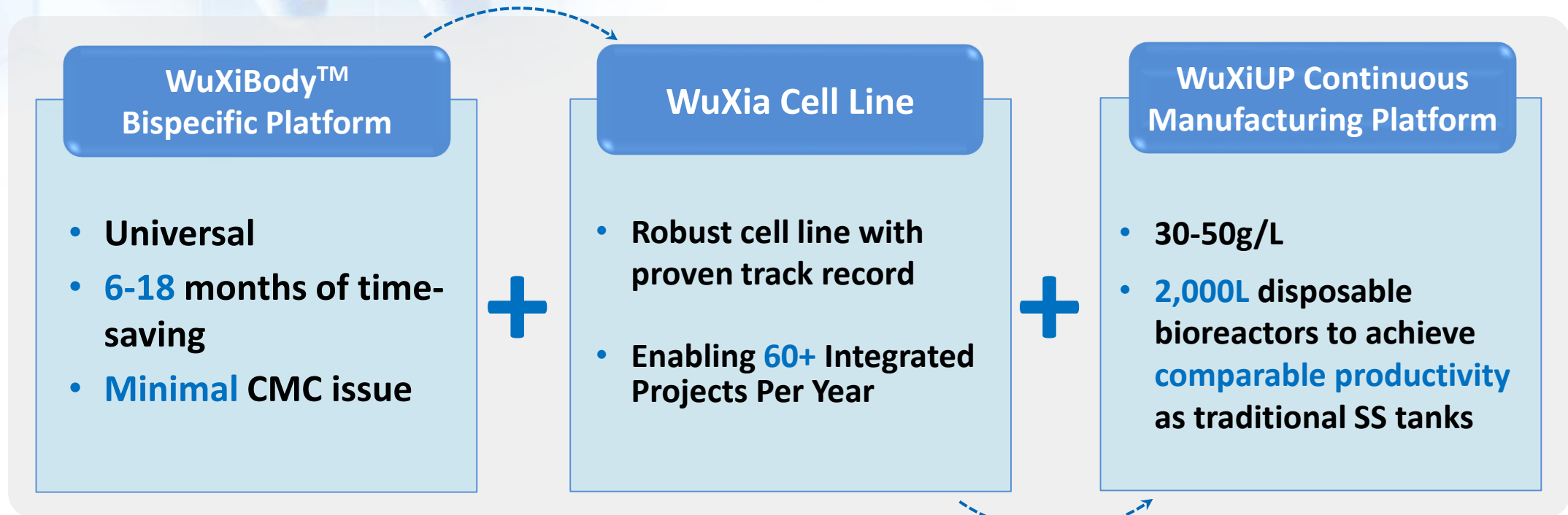
ONCTERNAL  
therapeutics

OXFORD  
BioTherapeutics

派格生物医药（苏州）有限公司  
PegBio Co., Ltd.

Shire

# Manufacture 35 g/L Process for a Bispecific: State-of-the-Art



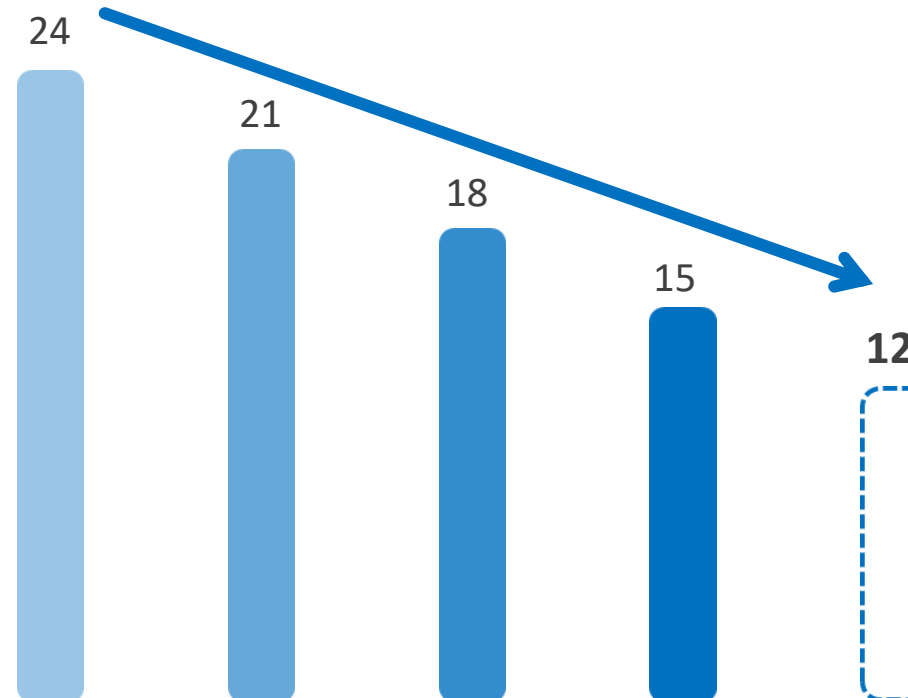
- 20+ WuXiUP projects
- 2 BLAs targeted

# WuXi Bio Speed Expedites and Enables Our Partners: 12 Months!

Utilizing sophisticated technology platforms and providing integrated services for ALL the CMC activities from DNA to IND filing in the shortest timeline globally

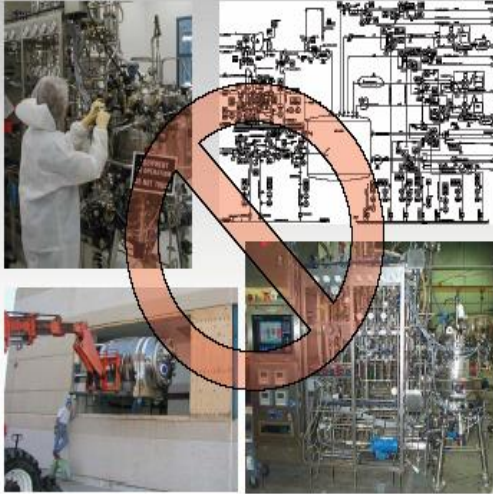
- **Faster First In Human**
- **Faster approval**
- **Reducing product development costs and save expenses**

From DNA to IND (Months)



# Disposable Manufacturing as Disruptive Technology

## Conventional Bioreactors



## Single-Use Bioreactors

- ☑ No cleaning and sterilization
- ☑ Simple design & operation
- ☑ Saves time and resources
- ☑ Minimal utilities
- ☑ Less maintenance and repair
- ☑ Simple qualification & validation
- ☑ Low contamination risk
- ☑ Less capital investment

VS

## HyClone Single-Use Bioreactor (SUB)

Permanent  
Support Vessel  
(50 and 250L)

Single-Use  
Bioreactor BPC



HyClone

- Global leader and pioneer of using disposable manufacturing technology which is now being adopted by the global industry
- Largest global network of **18** facilities exclusively using disposables bioreactors, no stainless bioreactors
- **700+** batches manufactured at **98%** success rate
- Comparable COGS with 10,000L+ with **scale-out** strategy (achieved as low as US\$80 per gram)
- **Less** CAPEX, faster in building facilities and comparable COGS resulting in higher ROI (MFG1 10-year ROI 51% realized, MFG2 35%, MFG3 50% expected)

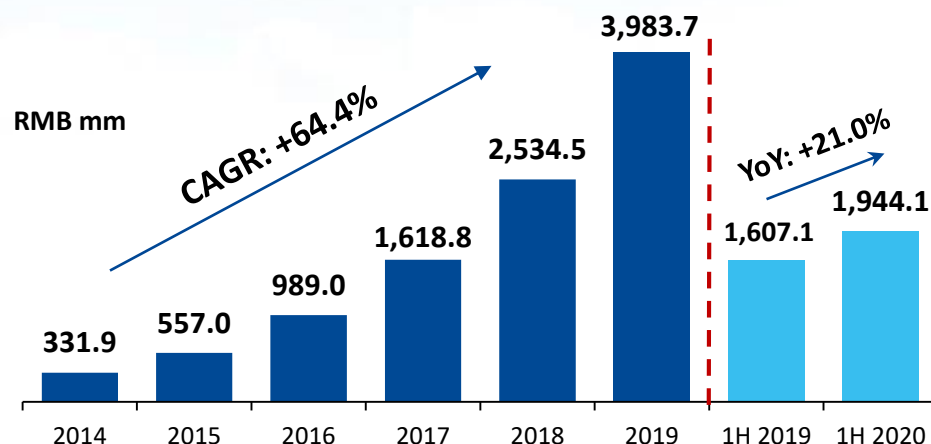


03

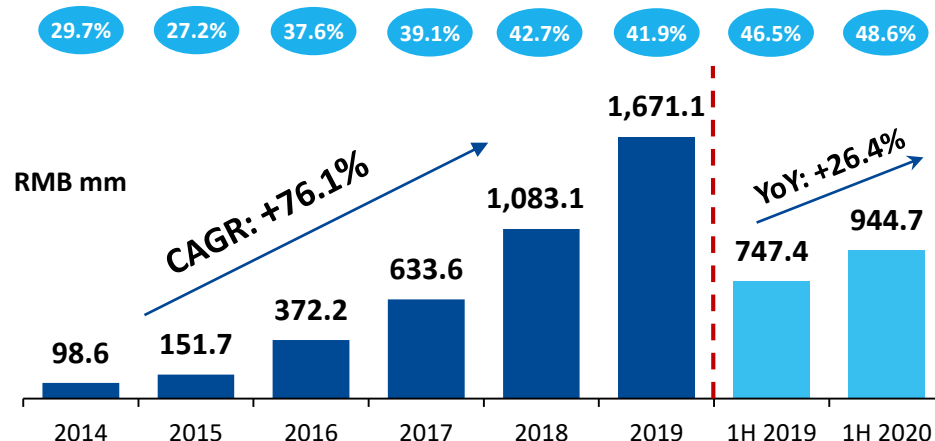
# Financial Overview

# Financial Performance

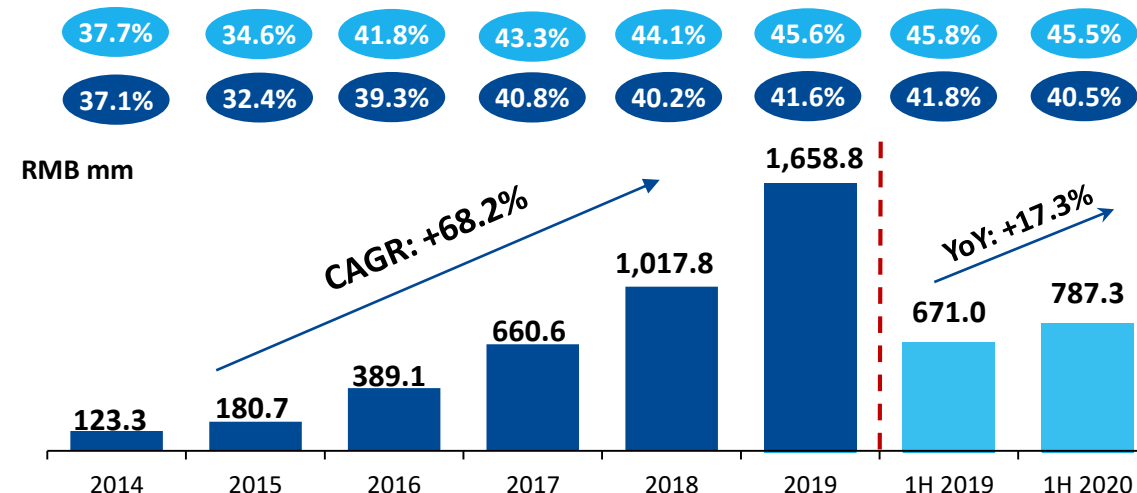
## Revenue



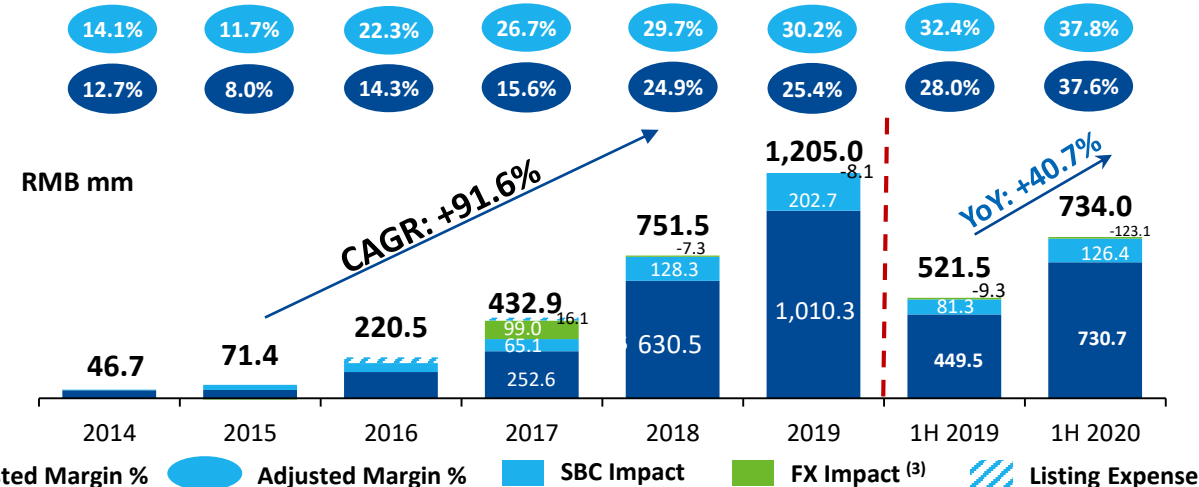
## Adjusted EBITDA (1)



## Gross Profit



## Adjusted Net Profit (2)



Unadjusted Margin % Adjusted Margin % SBC Impact FX Impact (3) Listing Expense

### Notes:

1. Adjusted EBITDA represents net profit before (i) interest expenses, income tax expenses, listing expenses and (ii) certain non-cash expenses, consisting of share-based compensation, amortization and depreciation and (iii) foreign exchange (gains)/losses

2. Adjusted net profit excludes the share-based compensation expenses, Listing expenses and foreign exchange (gains)/losses

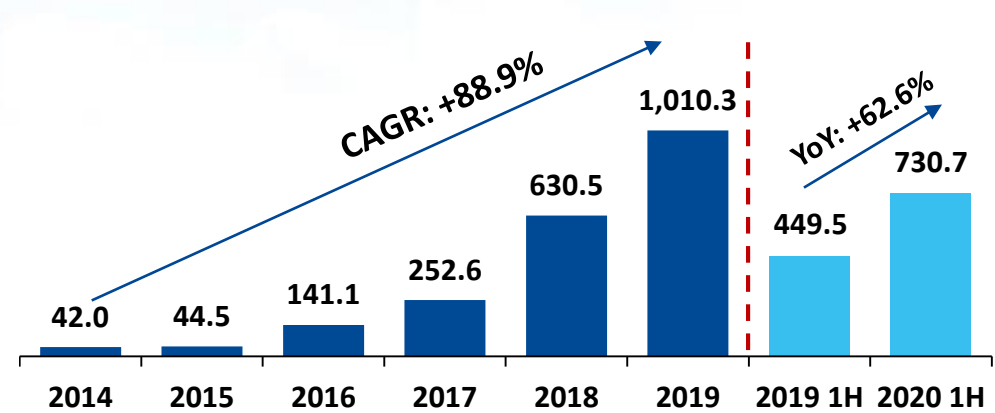
3. Refers to foreign exchange (gains)/losses



# Financial Performance

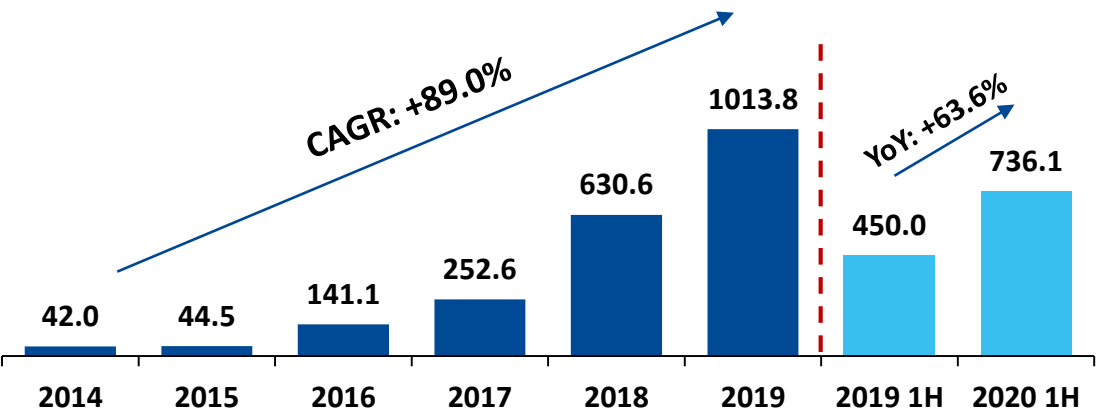
## Net Profit

RMB mm



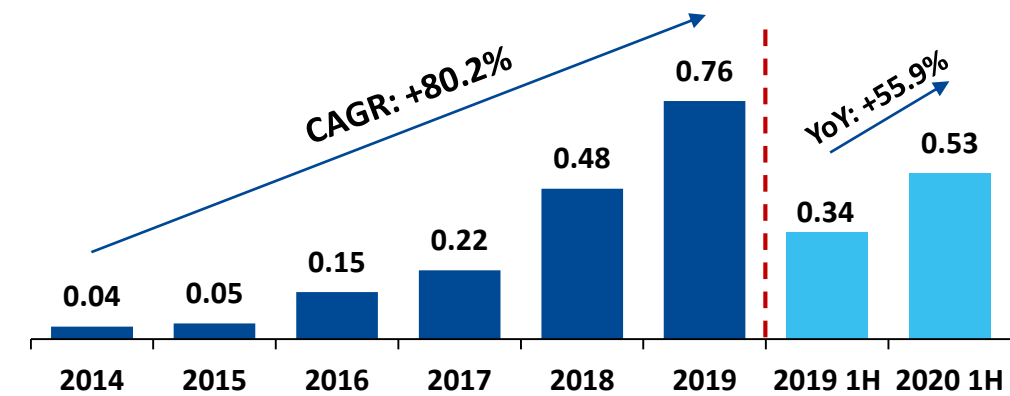
## Profit Attributable to Owners of the Company

RMB mm



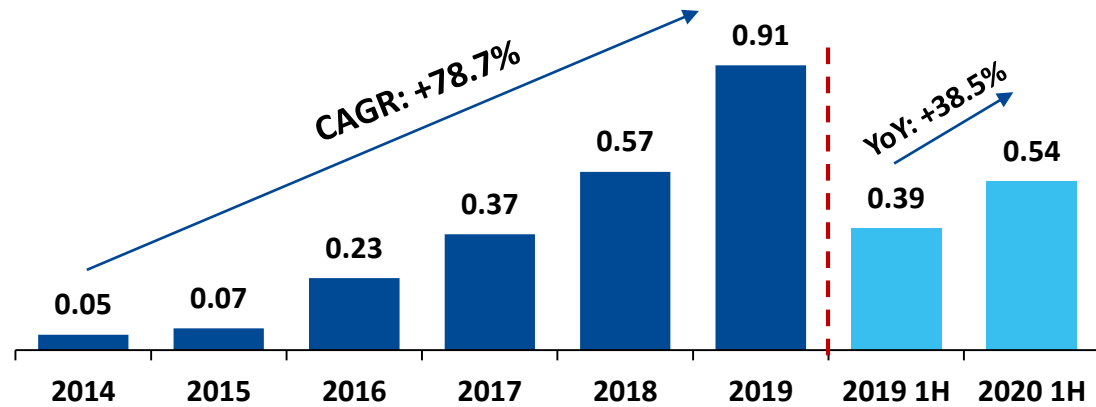
## Diluted EPS

RMB



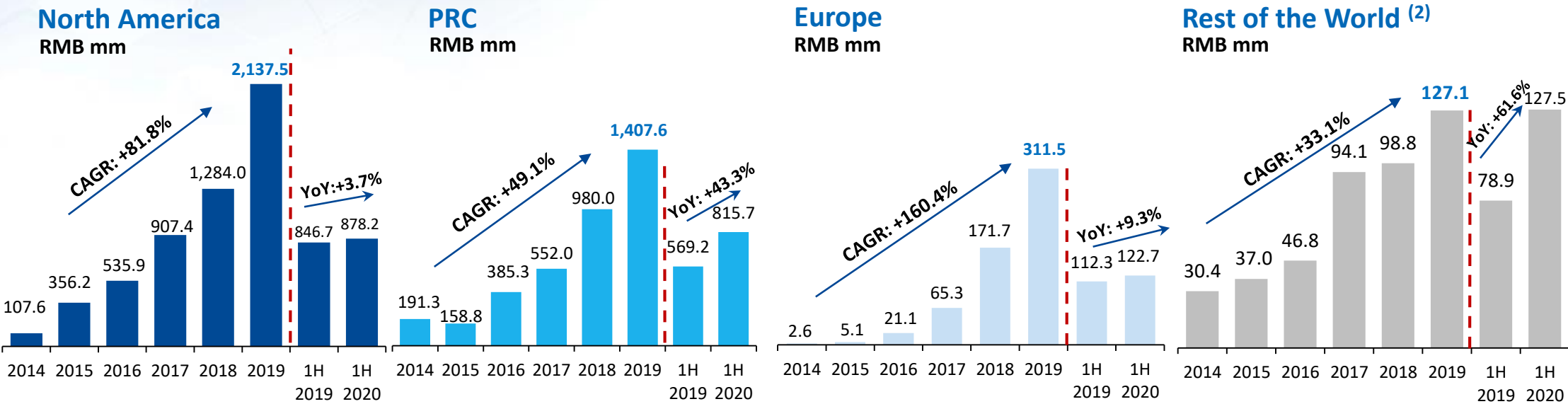
## Adjusted Diluted EPS

RMB

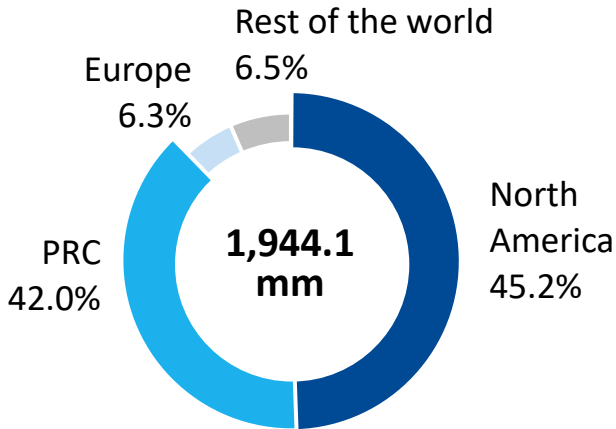




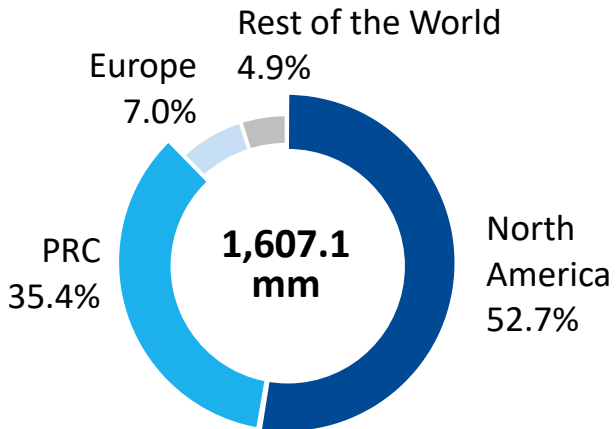
# Robust Growth Across All Geographic Markets (1)



1H 2020 Revenue (RMB)



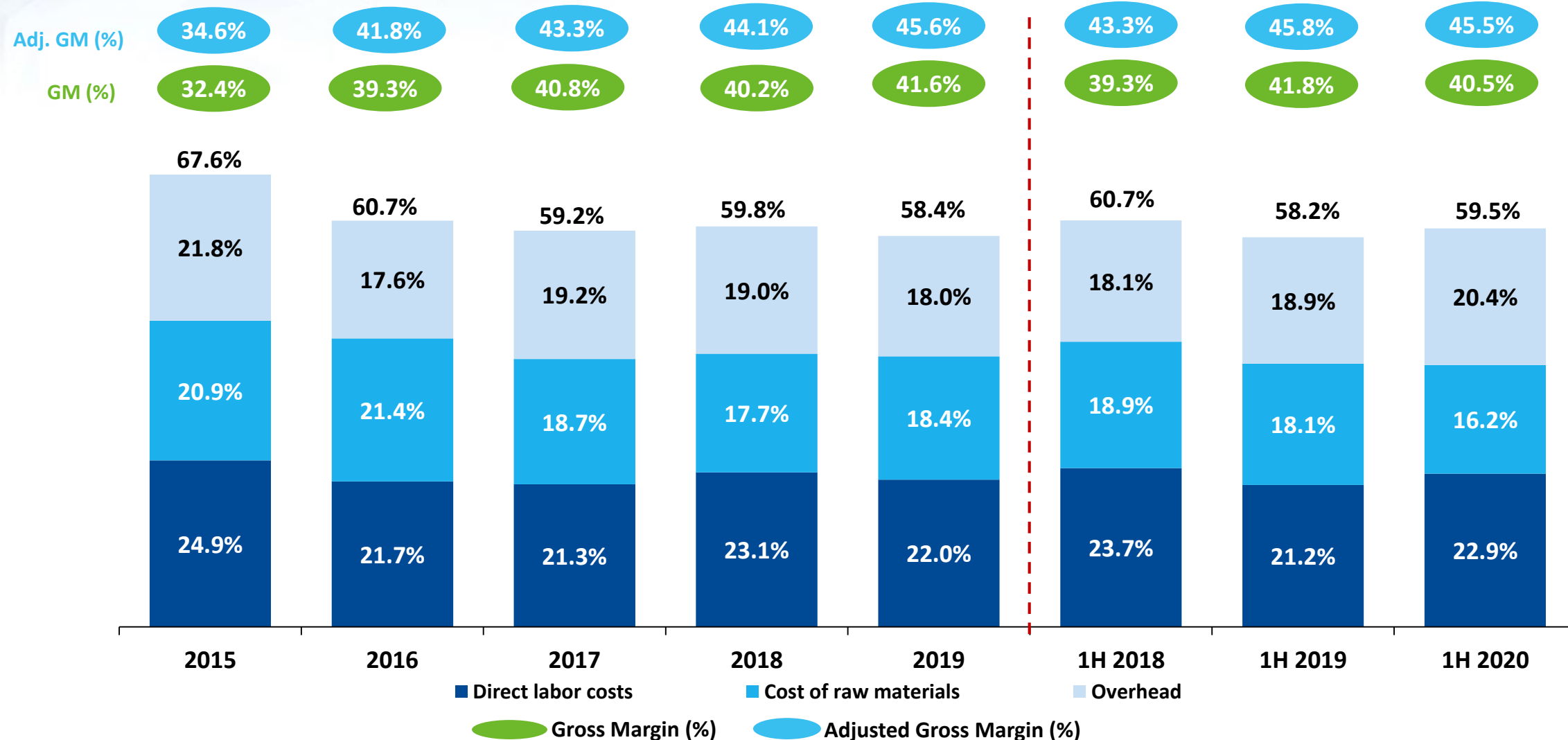
1H 2019 Revenue (RMB)



Notes:  
1. Geographic breakdown by client headquarters  
2. Rest of the world primarily includes Singapore, Japan, South Korea, Australia and Israel.

# Gross Margin Snapshot

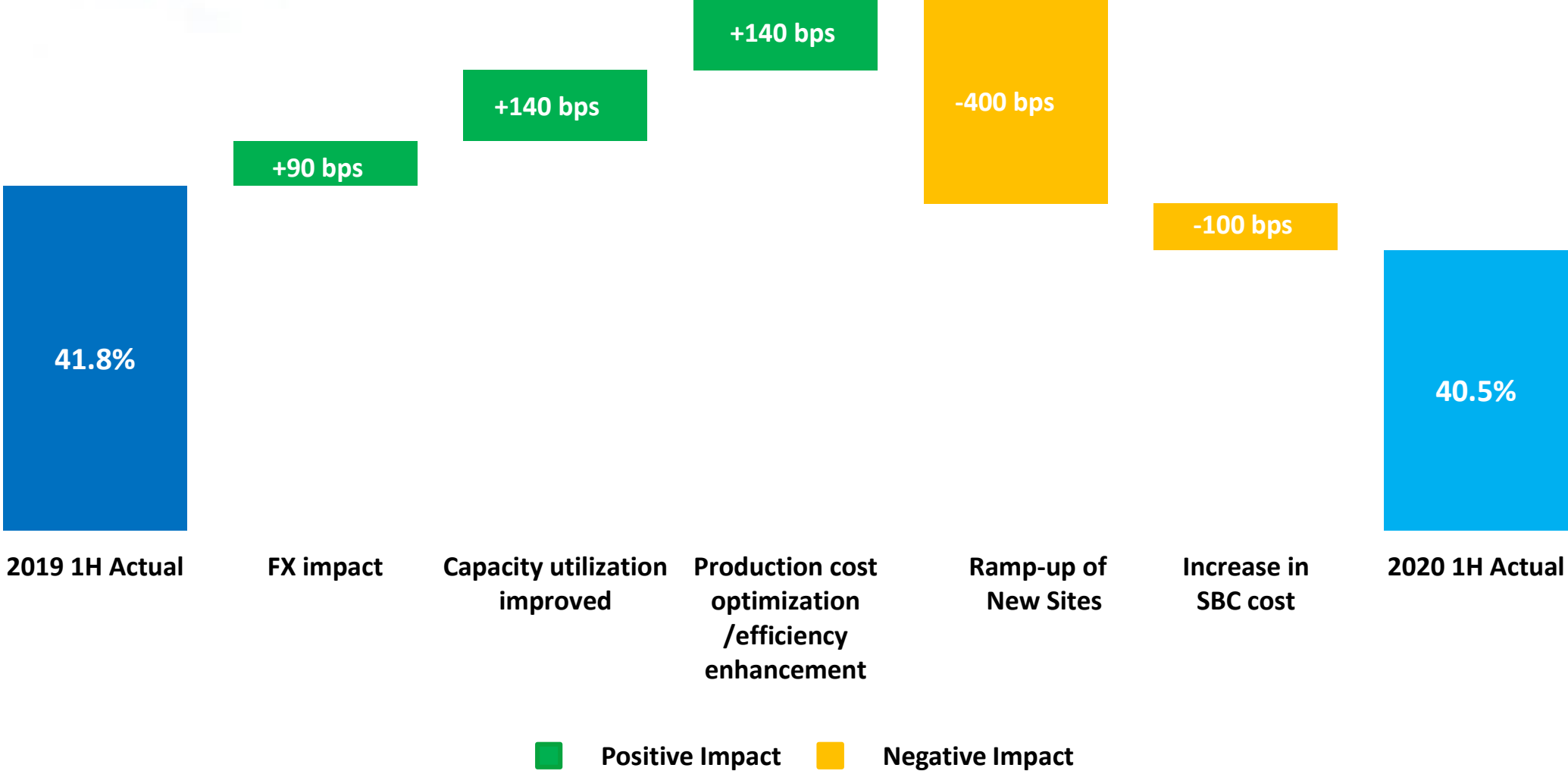
## Cost of Services as % of Revenue



Notes:

1. Adjusted gross margin excludes the share-based compensation expenses

# Despite Launch of New Sites Excellent Gross Profit Margin Achieved in 1H 2020





04

# Outlook & Catalysts

# Continuing to Gain Market Share to Support Robust Growth

## Cutting Edge Technology

- WuXiBody™ bispecific (universal, **6-18 months** of time-saving, minimal CMC issue)
- ADC (greatly enhanced **DAR4**, dedicated MFG sites, **10+** IND filings)
- WuXia cell line (**robust** cell line with proven track record)
- WuXiUP continuous manufacturing platform (**30-50g/L** titer, **10+x**)

## Best Timeline

### IND Filing Timeline

- Industry average: 18-24 months
- WuXi Bio target: 15 reduced to **12** months now!
- WuXi Bio record: 7 months, **<3** months for coronavirus related projects

## Excellent Track Record

- **100%** projects delivered
- **No** customer transfer out
- Excellent customer satisfaction and high recognition

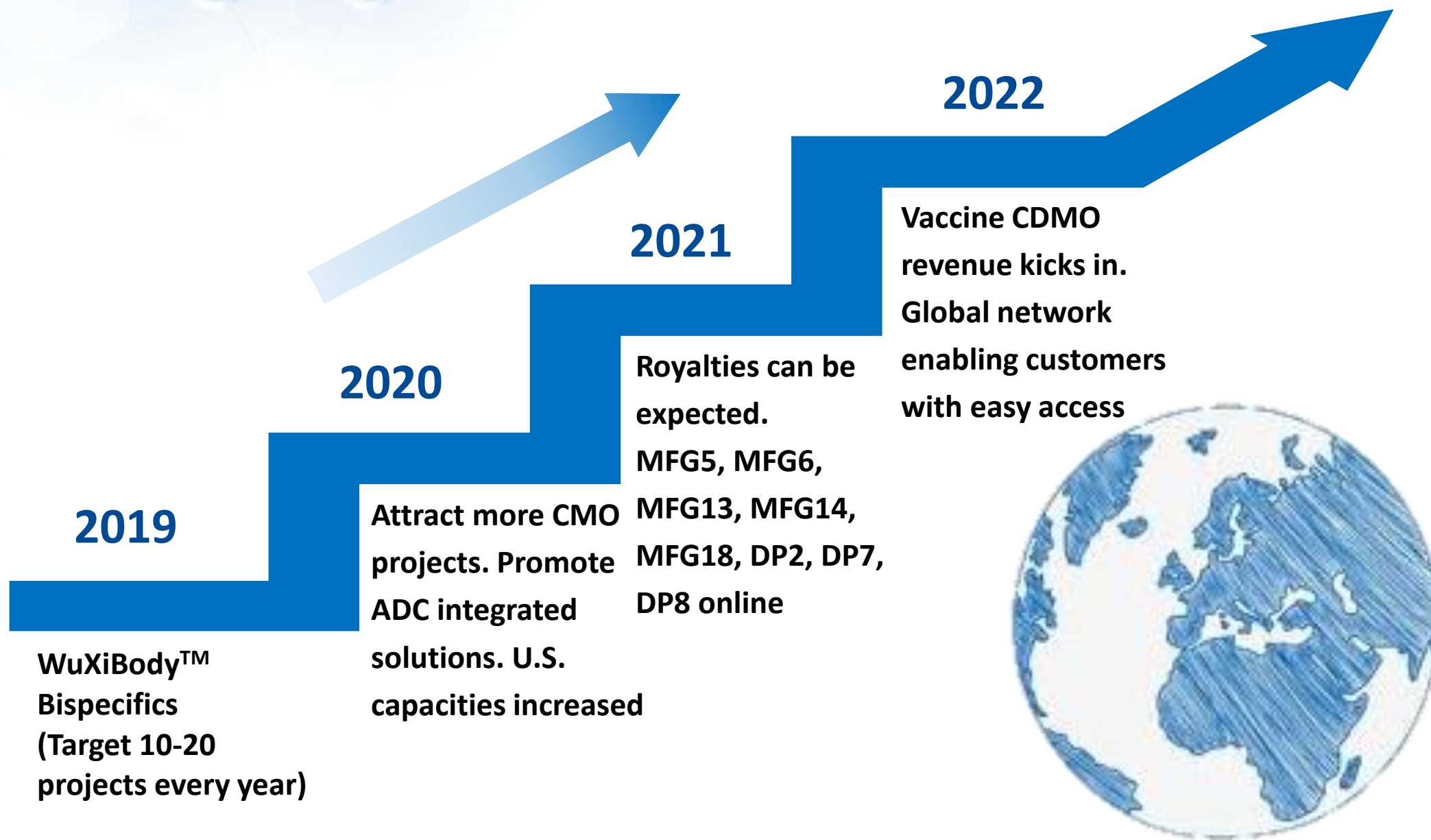
## Unparalleled Capacity

- Capacity for IND enabling projects increased from **60** per year to **80+**
- Late phase capacity increased from **5** BLAs to **7** per year
- One of the largest scientist team: **~2,500**
- Largest capacity using single-use bioreactor: **280,000L after 2023**

## Six Pillars Underpins WuXi Biologics Sustainable Growth

- 1** **Excellent IP protection (vs China and India competitors)**
- 2** **FDA and EMA accepted quality system: only company in China, top 10 among global CDMOs**
- 3** **State-of-art technology platform: comparable to large pharma**
- 4** **Superb execution won trust from global clients**
- 5** **World-class talent: 500+ senior scientists, 1,000+ young scientists per year**
- 6** **Strong financials: around US\$1.6 bn cash**

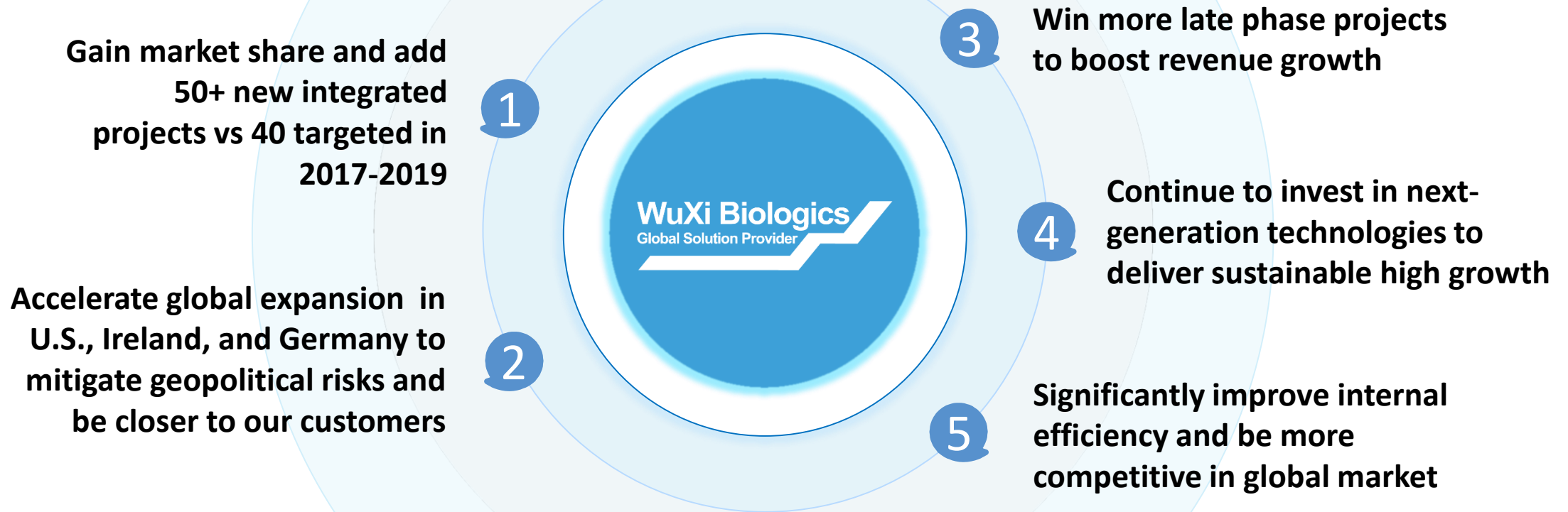
# Multiple Engines Support Sustainable High Growth





## Conclusion: Business Momentum Remains Strong

**In 2020, we will enable our global partners to work at home, enlarge more collaborations with our improved timeline and increased capacities, improve efficiency of our operations and continue to accelerate global footprint to achieve outstanding performance**



# 2H 2020 Key Milestones and Catalysts



- 1<sup>st</sup> IND filing of WuXiBody™
  - 7 INDs filing for COVID-19 mAbs
  - Potential COVID-19 vaccine deals
  - FDA pre-license inspection at MFG2
- US BLA approval
  - 1<sup>st</sup> Chinese BLA approval
  - DP7 operational in Germany





05

# Appendix



# **A. Financial Summary**

# First Half 2020 Financial Summary

(RMB million)	1H 2020	1H 2019	Change
<b>Revenue</b>	<b>1,944.1</b>	<b>1,607.1</b>	<b>21.0%</b>
Cost of Sales and Services	(1,156.8)	(936.1)	
<b>Gross Profit</b>	<b>787.3</b>	<b>671.0</b>	<b>17.3%</b>
Other Income	148.4	123.8	
Other Gains and Losses	225.7	16.3	
Impairment Losses under Expected Credit Loss Model, Net of Reversal	(56.6)	(9.6)	
Selling and Marketing Expenses	(48.5)	(26.3)	
Administrative Expenses	(203.4)	(149.7)	
Research and Development Expenses	(124.4)	(109.1)	
Share of (Loss) Profit of an Associate	(1.1)	0.3	
Financial Cost	(22.4)	(4.6)	
<b>Profit before Tax</b>	<b>705.1</b>	<b>512.0</b>	<b>37.7%</b>
Income Tax Credit (Expenses)	25.6	(62.6)	
<b>Profit for the Period</b>	<b>730.7</b>	<b>449.5</b>	<b>62.6%</b>
Earnings per Share – Basic (RMB)	0.57	0.37	
Earnings per Share – Diluted (RMB)	0.53	0.34	

Note:

1. Results may not foot due to rounding

# Reconciliation for Adjusted Net Profit and Adjusted EBITDA

(RMB million)	1H 2020	1H 2019	Change
<b><u>Adjusted Net Profit Reconciliation</u></b>			
Net Profit	730.7	449.5	
Share-based Compensation	126.4	81.3	
Foreign Exchange Gain	(123.1)	(9.3)	
Adjusted Net Profit	734.0	521.5	40.7%
<b><u>Adjusted EBITDA Reconciliation</u></b>			
EBITDA	941.4	675.4	
Share-based Compensation	126.4	81.3	
Foreign Exchange Gain	(123.1)	(9.3)	
Adjusted EBITDA	944.7	747.4	26.4%

Note:

1. Results may not foot due to rounding





# **B. WuXi Bio's Technologies and Capabilities**



# State-of-the-Art Technology Differentiates WuXi Bio

## 1 WuXiBody™ Bispecific Platform

- Combine any two antibodies and assemble into bispecifics
- Easy to express, no aggregation or mispairing, can be developed **6-18** months faster and much lower COGS than competitor platforms
- Support **50+** projects per year which attracts downstream services

## 2 Transgenic Animal For mAbs Discovery

- Access to OMT's state-of-the-art transgenic animal technology to develop fully human antibodies with high quality, specificity, expression, solubility and stability
- Proven technology platform used by **20+** other global companies
- Support 50+ projects per year with potential downstream services

## 3 Antibody Drug Conjugate Discovery

- Integrate our in-house antibody discovery, toxin and linker to deliver the ideal lead ADC molecules
- Greatly simplify ADC drug development by providing a one-stop shop
- **30+** ongoing projects with ADC discovery services with potential downstream service

## 4 WuXia Cell Line Platform

- Our own proprietary cell line paired with our own proprietary algorithm is more cost-effective, more efficient and yields better results
- License know-how generated during cell line engineering and development process to the customer in exchange for a license fee and future royalty payments
- Developed **305+** CHO-K1 cell lines total for therapeutic protein purpose

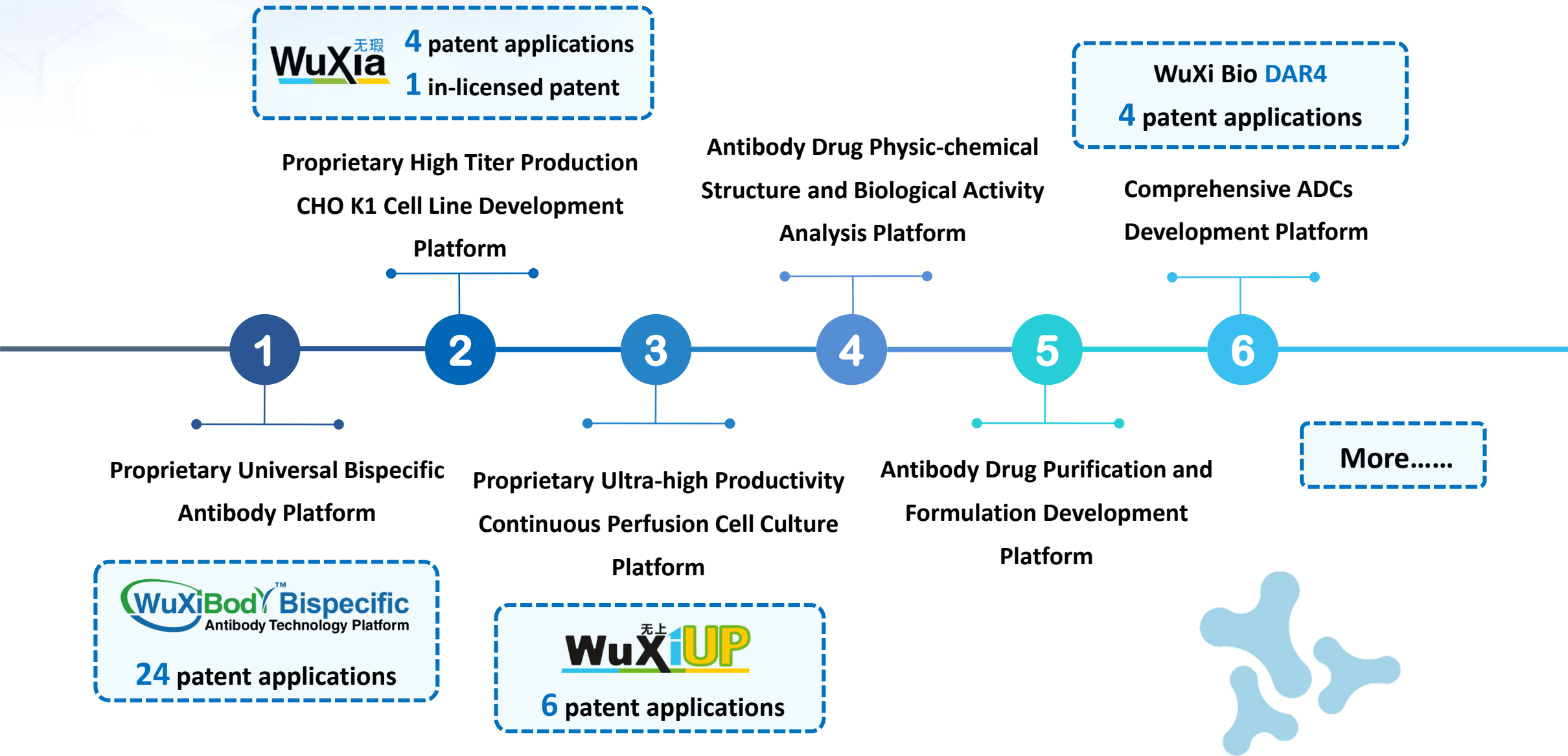
## 5 Disposable Manufacturing Technology

- No cleaning and sterilization required for disposable bioreactors that use pre-radiated plastic bags as the production vessel in a stainless holder
- A facility using disposable bioreactors can be built 12 to 18 months faster with **30% to 50%** less investment, and can produce 5% to 15% more batches of products with a higher success rate compared to traditional stainless steel bioreactors

## 6 WuXiUP Continuous Manufacturing Platform

- The next generation biologic manufacturing solution to accelerate biologics development and manufacturing as well as to improve the affordability of biologics
- **30-50g/L** titer, **10+x**
- Enabling 2,000L disposable bioreactors to comparable productivity as traditional SS tank through WuXiUP

# Globally Recognized Technology with 39 IP Applications

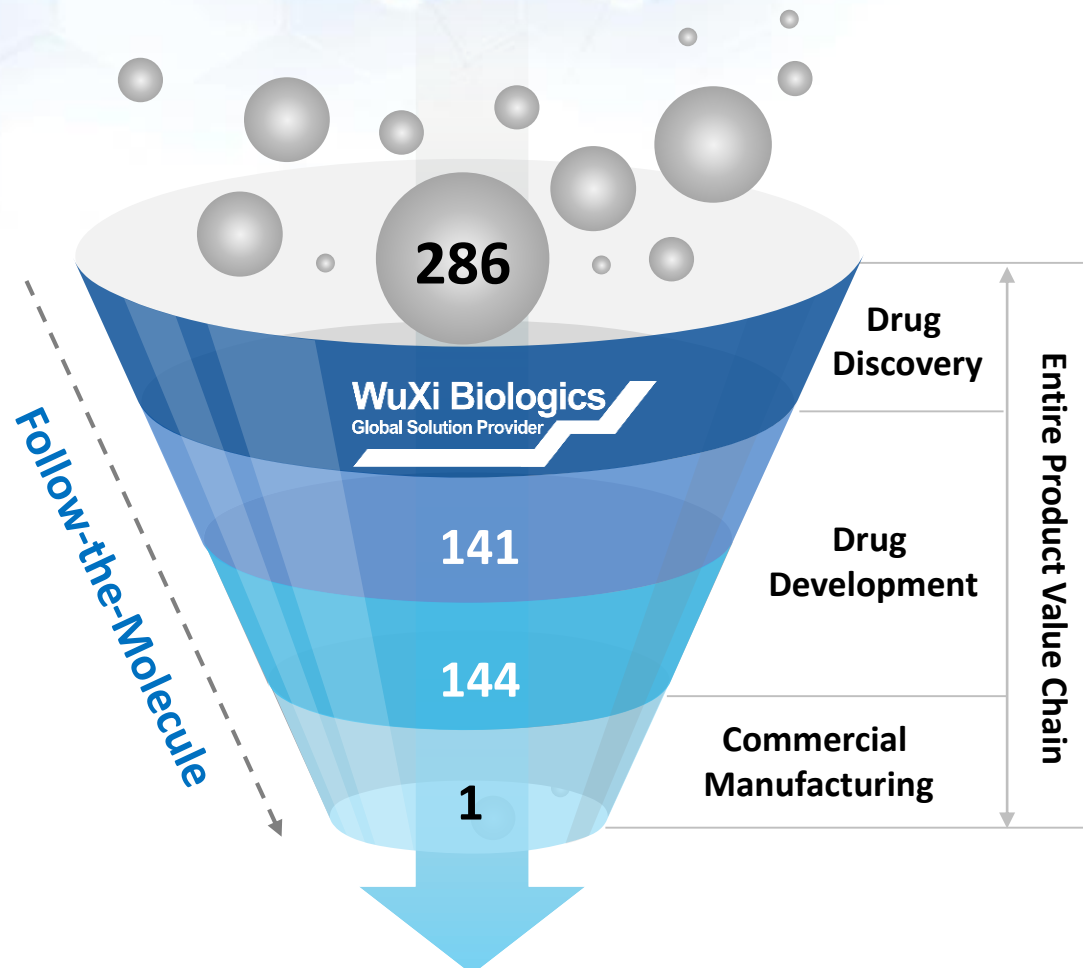


# Global Partners Continue to Expand

**300+** global partners including **16** of the 20 largest pharmaceutical companies in the world and **28** of the 50 largest pharmaceutical companies in China



# Global Dual Sourcing within WuXi Bio: Robust Supply Chain



Global Dual Sourcing within WuXi Bio

- World-class capabilities, expanding capacities, excellent track record and superb execution securing more projects globally than other players
- Biologics projects are **sticky**, securing early stage projects to ensure high likelihood of continuing to commercialization – “Follow-the-Molecule”
- Our “**on-demand global capacity planning**” and “**global dual sourcing within WuXi Bio**” fulfill our global customers’ rapid growing demand
- “Follow-the-Molecule” strategy taking on effect: more integrated projects moving to CMO stage starting from 2020
- **Two** Programs from DNA to BLA achieved

# High-Impact Innovation to Enable Customers' Success

## WuXiBody™ Bispecific Platform

- Universal
- **6-18** months of time-saving
- Minimal CMC issue
- More strategic partnerships with customers



## WuXia Cell Line

- Robust cell line with proven track record
- Enabling **60** Integrated Projects Per Year
- **40+** ongoing clinical projects in U.S., EU and China



## WuXiUP Continuous Manufacturing Platform

- **30-50g/L** titer, 10+x
- Achieving ultra-high productivity
- Enabling **2,000L** disposable bioreactors to **comparable productivity** as 20,000L traditional SS tank



Discovery

Development

Manufacturing

Innovation of next growth cycle in biologics



# Leading Edge Technology of WuXiBody™

## DIFFERENTIATION

- **Universal:** almost any mAb sequence can be used to build bispecifics
- **Flexibility:** bi/tri/tetra valency based on biology

## SPEED

Minimal CMC challenges:  
no expression,  
aggregation or  
purification challenges –  
Save **6-18** months of  
development time

## QUALITY

- Expected **low immunogenicity:** natural sequence without complicated engineering
- Typical in vivo **half-life**, longer than typical bispecifics

**WuXiBody™ Platform**  
A new era in bispecifics



**ablbio**  
medicine for a better life

**AC Immune**

**正大天晴**  
CHIATAI TIANQING

**安科生物**  
ANKEBIO

**天境生物**  
I-MAB BIOPHARMA

**OXFORD**  
BioTherapeutics

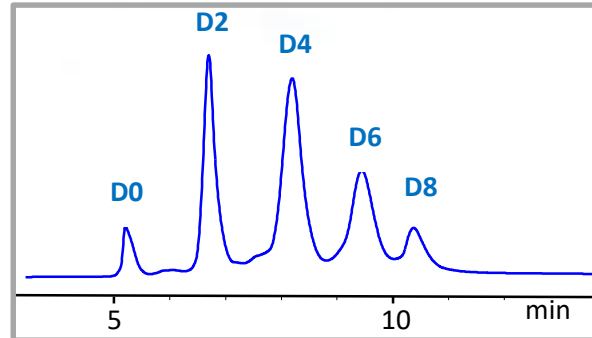
**Brii**

**almirall**

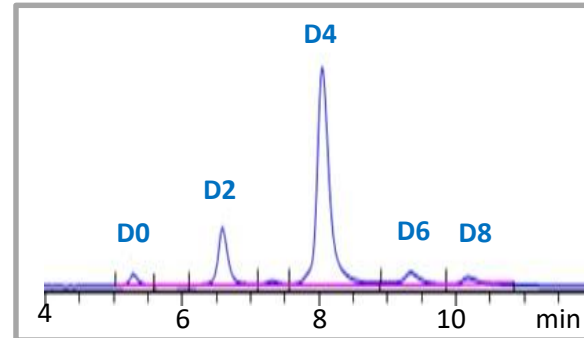
More...

# WuXi Bio's Patented ADC Conjugation Technologies - Greatly Enhanced DAR4, Significantly Improved Therapeutic Windows

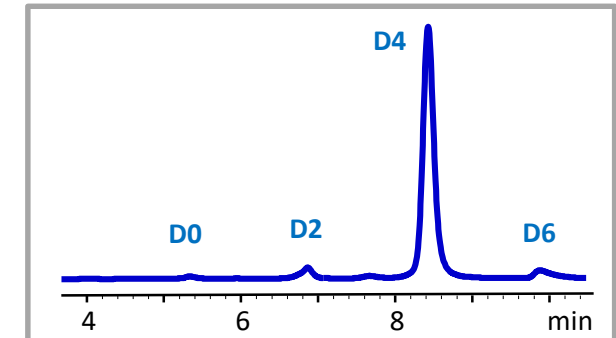
ADC produced with conventional method, natural DAR distribution



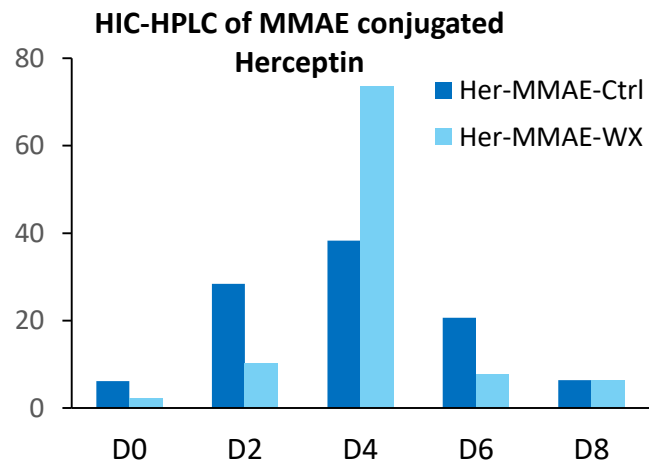
ADC produced with WuXi Biologics' IP for native IgG1



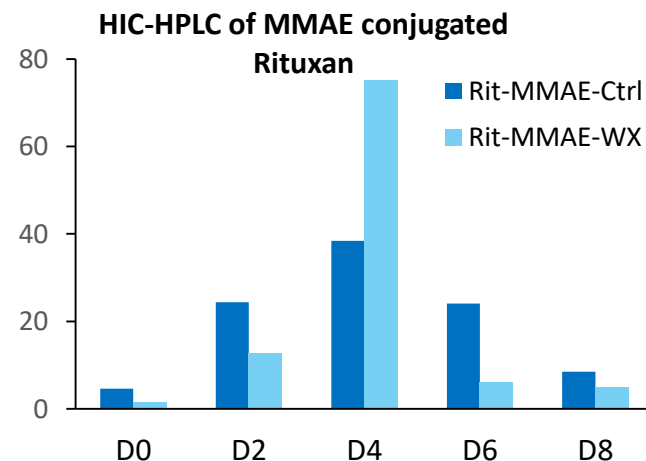
ADC produced with WuXi Biologics' IP for engineered IgG1/4



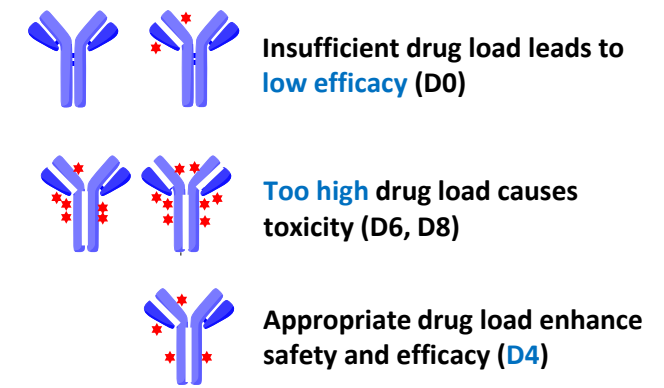
## mAb in clinic: Trastuzumab



## Rituximab



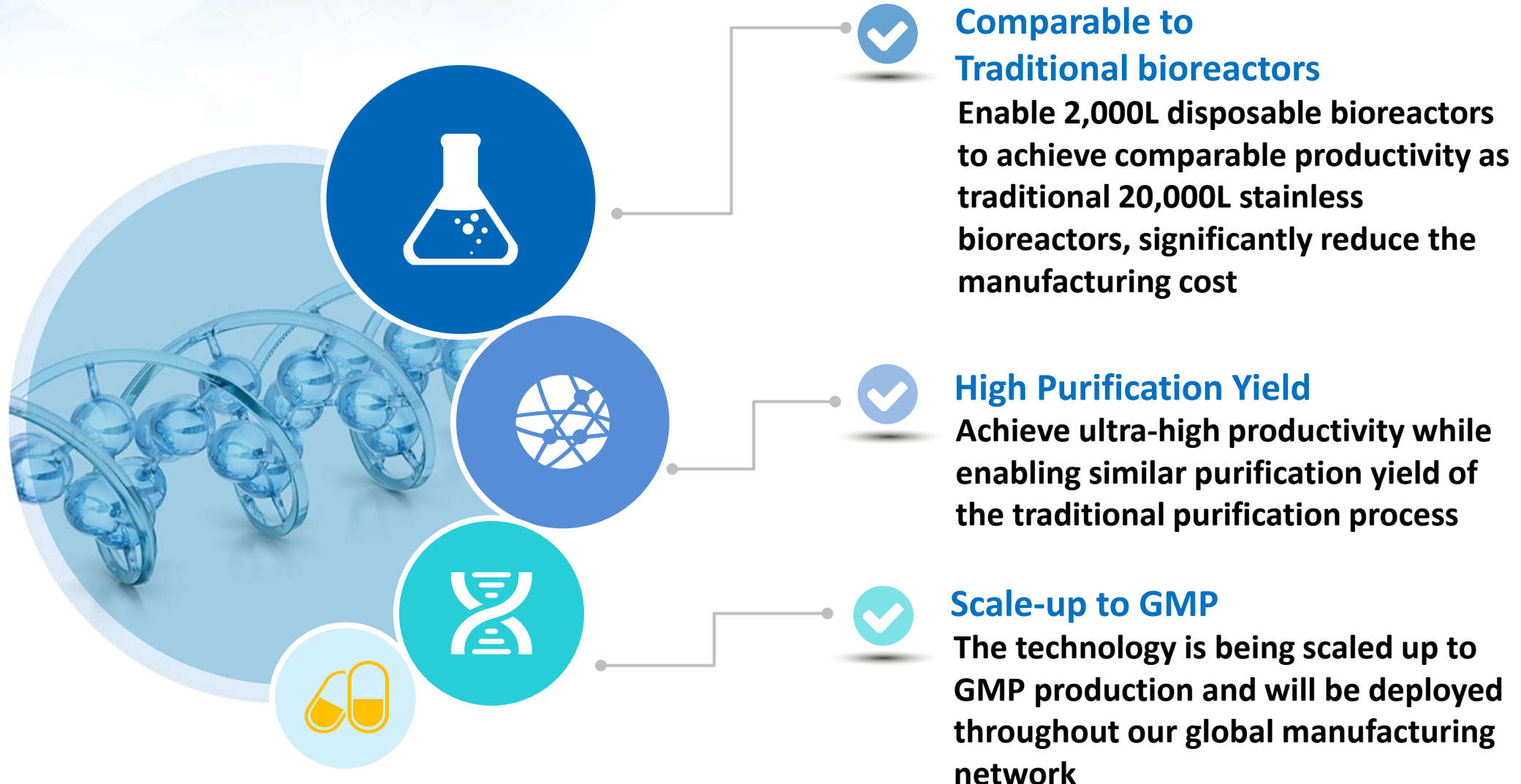
## Drug-Antibody Ratio (DAR) Greatly Affects Efficacy And Safety of ADC



*Clinical Cancer Research. 10, 7063–7070 (2004)*  
*Bioconjugate Chem. 25, 656–664 (2014)*



# WuXiUP to Expedite Product Launch and Reduce Manufacturing Cost



# WuXi Vaccines: Appointed Mr. Jian DONG as CEO



**Mr. Jian DONG**  
CEO  
WuXi Vaccines

- **30+ years of bio-manufacturing experience**
- **SVP at WuXi Biologics, head of Wuxi bio-manufacturing and oversea global engineering**
- **Formerly Deputy General Manager at Unilab Bioscience, Vice President at Celgen, and Senior Process Engineer at Eli Lilly**
- **Extensive experience in vaccine manufacturing and facility qualification**
- **Strong tech transfer and large scale commercial production expertise**

**“ We are confident that Jian will lead the company to establish a global high-quality system with outstanding vaccine CDMO capabilities. With a vision to accelerate and transform vaccine development and production, WuXi Vaccines will make substantial contributions to expedite vaccine development and ensure a robust supply chain.”**



**Dr. Chris CHEN**  
Chairman  
WuXi Vaccines

# WuXi Bio Speed Manifested Again in Ireland



- “ • Nov. 2019: announced **US\$240 mm** investment
- Feb. 2020: signed the first **US\$3 bn** contract
- Aug. 2020: QC lab ready, steel erected
- Negotiating **4** potential COVID-19 vaccines' manufacturing contracts ”





## WuXi Bio Vision

“Every drug can be made and every disease can be treated” by building an open-access platform with the most comprehensive capabilities and technologies in the global biologics industry

