

# *Global Premier CRDMO: Enabling Global Partners and Delivering Sustainable High Growth*

*2023 Investor Day  
Fengxian Shanghai*



**WuXi Biologics**  
Global Solution Provider

Stock Code: 2269.HK

# 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)

We have provided adjusted net profit, adjusted net profit margin, adjusted EBITDA, adjusted EBITDA margin and adjusted diluted earnings per share for the corresponding periods, which excludes the share-based compensation expenses, listing expenses and foreign exchange gains or losses, and are not required by, or presented in accordance with, IFRS. We believe that the adjusted financial measures used in this presentation are useful for understanding and assessing underlying business performance and operating trends, and we believe that management and investors may benefit from referring to these adjusted financial measures in assessing our financial performance by eliminating the impact of certain unusual and non-recurring items that we do not consider indicative of the performance of our business. 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 IFRS. You should not view adjusted results on a stand-alone basis or as a substitute for results under IFRS, or as being comparable to results reported or forecasted by other companies.

01

**Success of Follow the Molecule Strategy**

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04

**Digital and AI will drive the future of WuXi Biologics**

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02

**Transferring the secret of success to Ireland**

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05

**Company Update**

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03

**Disposables as powerful as stainless technologies**

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06

**Summary**

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# Success of Follow the Molecule Strategy

*01*

# Pompe Disease Overview

Pompe disease is a rare genetic disorder that causes progressive weakness to the heart and skeletal muscles.



Two types which are Late-onset Pompe disease (LOPD) and Infantile-onset Pompe disease (IOPD)

5,000 – 10,000 patients globally.

Caused by mutations in a gene that makes an enzyme called acid alpha-glucosidase (GAA)

Respiratory failure and heart failure are two of the most lethal manifestations of diseases.

Enzyme replacement therapy can treat Pompe disease.

Currently Nexvazyme from Sanofi are used on market, cost \$760k/year.

If newborn babies diagnosis as Pompe disease, they usually do not live to 1-2 years old.

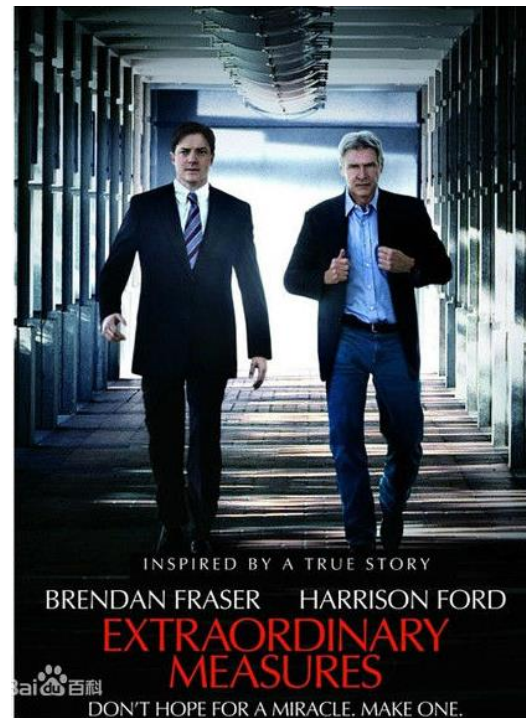


# How Drug Discovery Became a Personal Journey (1998-2010)?

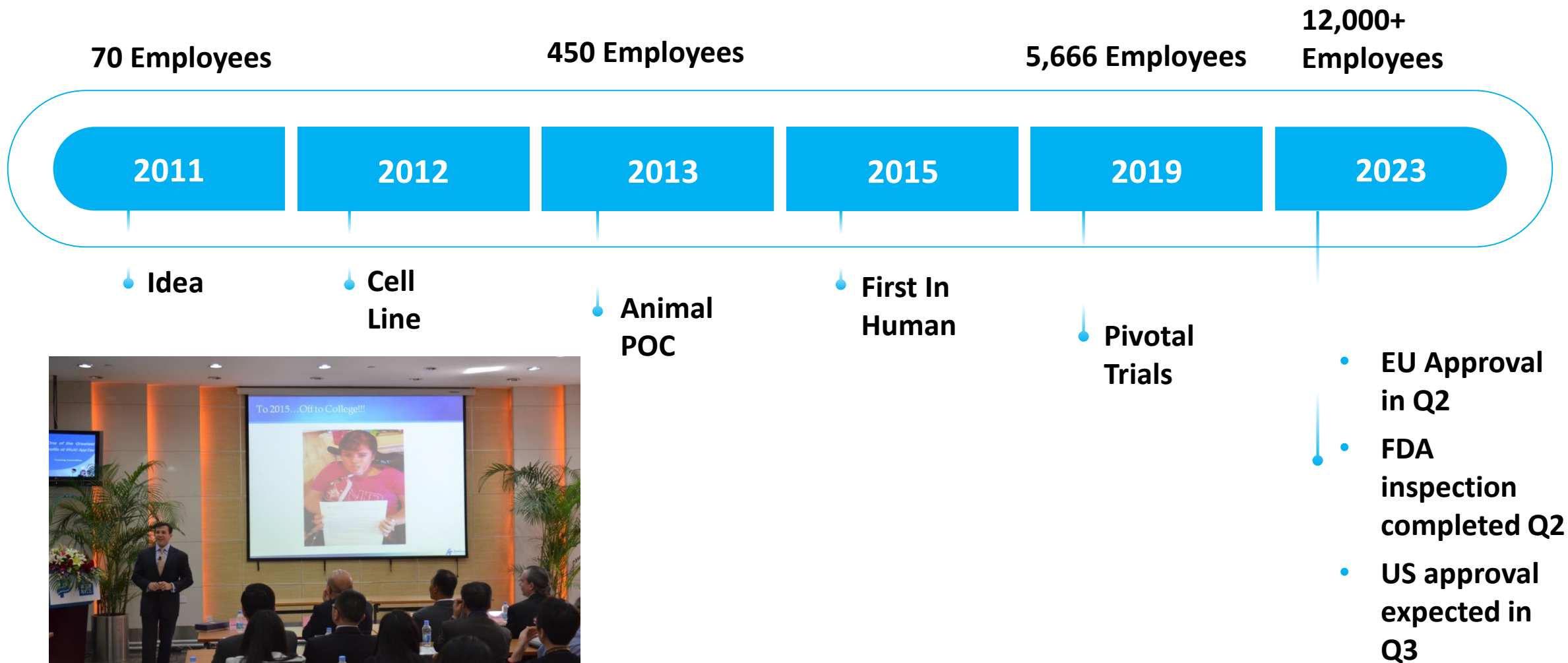
**John Crowley**  
Executive Chairman of  
Amicus



The Story was taken into the movie “Extraordinary Measures” in 2010



# Sequel of “Extraordinary Measures” (2011-2023): Finding a Next-generation Biologics – More Precise and Potent



# AT-GAA: Global Regulatory Status

Anticipate regulatory approvals and launch into the three largest Pompe markets in Q3 2023



- Pombiliti™ (cipaglucosidase alfa) received a positive CHMP opinion in December 2022
- Miglustat CHMP opinion is expected in Q2 2023



- Pre-approval manufacturing inspection schedule for Q2
- Approval expected in Q3



- U.K. MAA submitted via recognition procedure based on CHMP opinion





# Global Dual Sourcing Strategy to Enable the Client



**Every batch can provide a full year supply for  
approx. 1% of global population!**

# D to M Conversion 100% Since 2018:

80% programs 100% sourced from WuXi, remaining 20% ~90% sourced

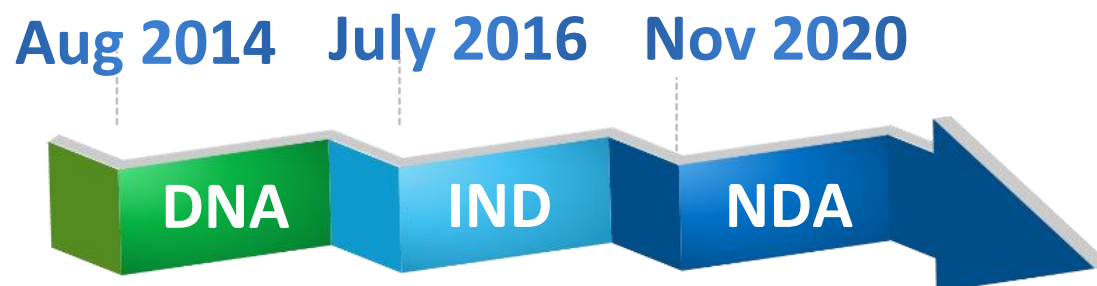
Concentrated Fed-batch process; China NDA approval as breakthrough in Aug 2021



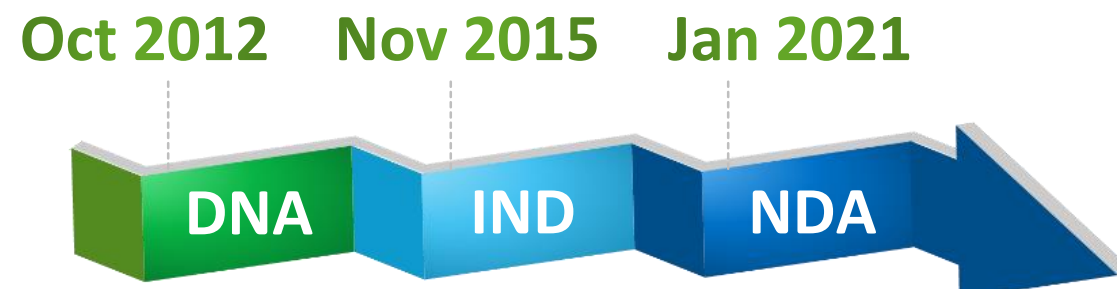
Approved in US & EU; Continuously reporting positive data in new indication



China NDA approval in Dec 2021 & oversea BLA submission in Dec 2022

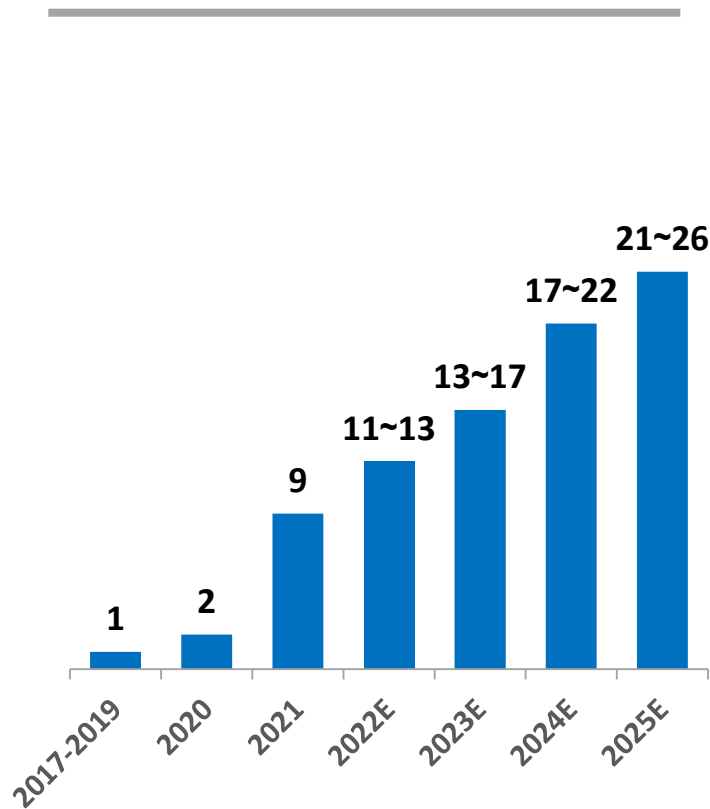


Challenging perfusion cell culture process; MAA approval in Mar 2023

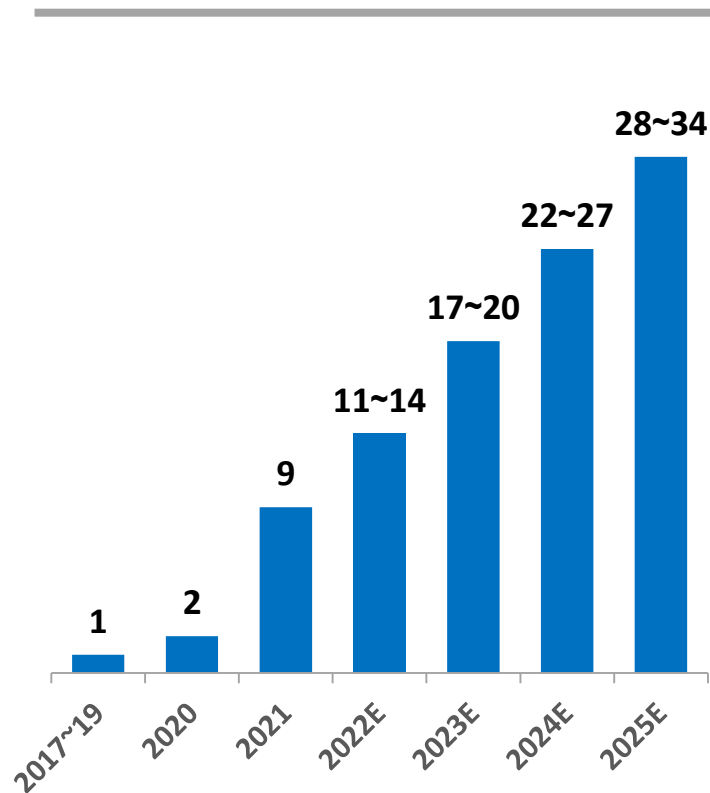


# Commercial Manufacturing will Drive Strong Growth from 2021 and Beyond

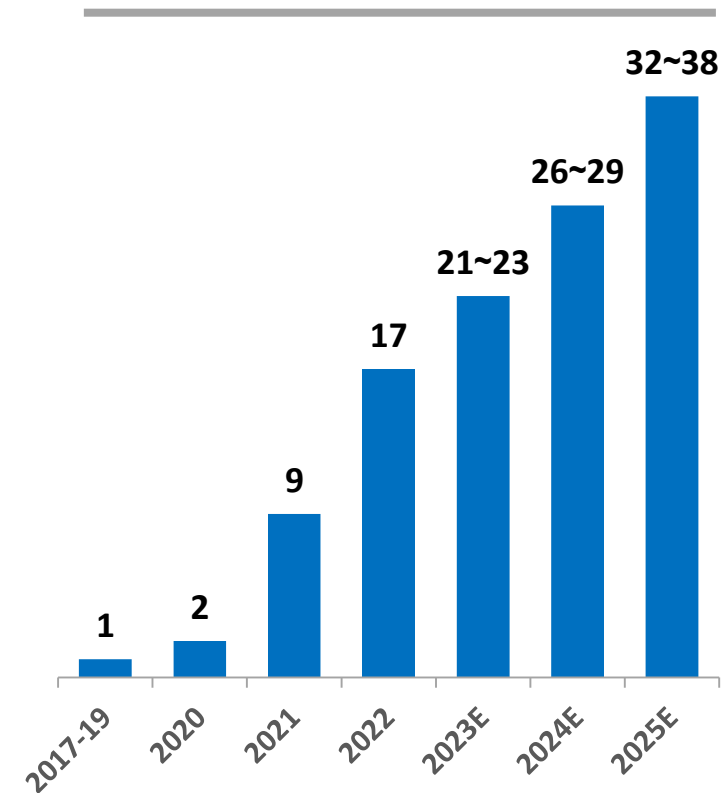
2020 CMO Prediction



1H2022 CMO Prediction



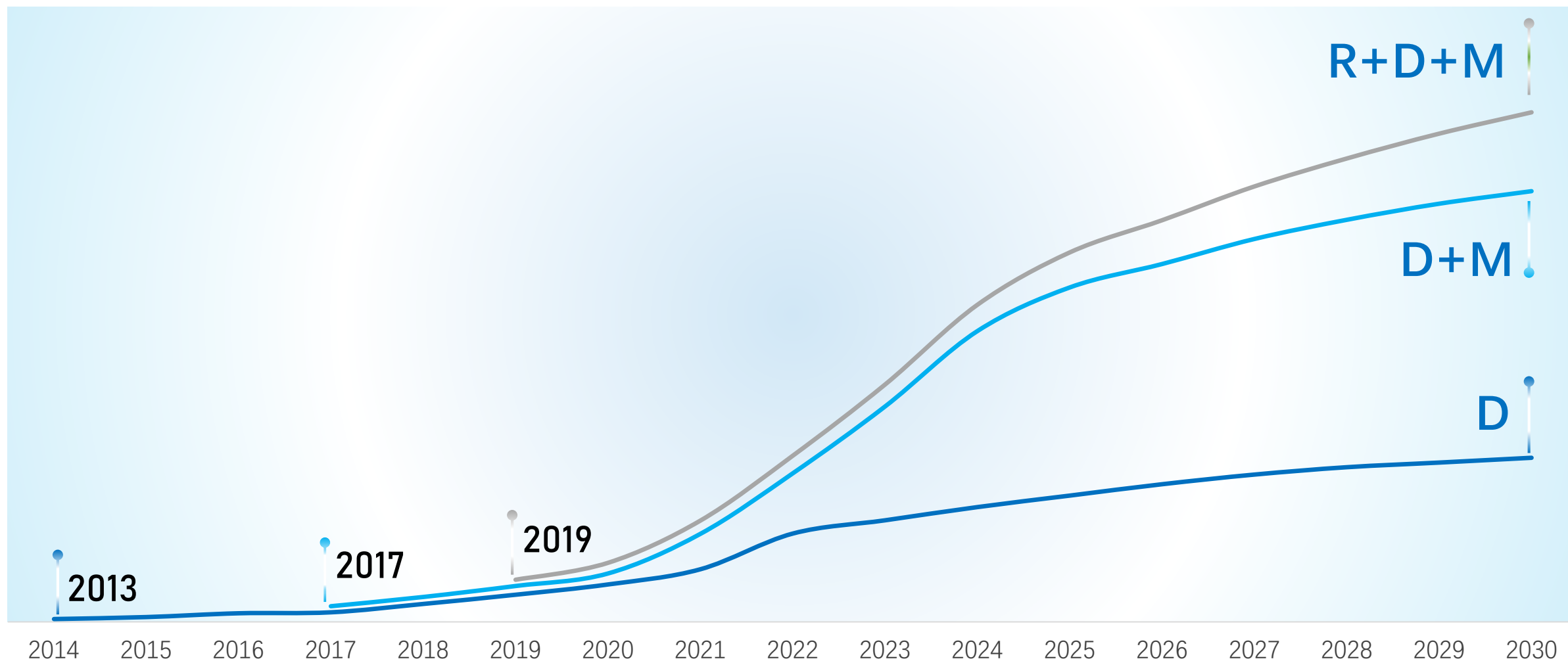
2023 CMO Prediction



- CMO projects are expected to increase by implementing “Follow & Win the Molecule” strategies
- “Win-the-molecule” enables WuXi Bio to secure more potential CMO projects

# CRDMO: Three Growth Curves Drive Sustainable Long-term Growth

## Three Long-Term Growth Curves





# Transferring the Success to Ireland

*02*

# Project Execution: Fastest Project Built to GMP in Ireland Despite COVID



- 65.5 Acre greenfield site
- Construction started in early 2019 and completed 26 months later
- 467,520sq.ft. of floor space across 18 distinct areas/buildings, 313,058sq.ft. GEP, 154,150sq.ft. GMP
- 500,000 tons of earth moved, 6,000 tons of structural steel, 39 miles of underground dry services, 6.2 million work hours, 1,400 average personnel on site
- Commissioning, Qualification and Validation (CQV) accounted for 70,000 files, 120,000 records and 9,500 material certs across over 140 equipment vendors and 4 mechanical contractors



# Project Successes

- Over the course of the project nearly 75 archaeologists were empowered to dig and preserve the historical artifacts spread across the construction site
- Project was completed with a remarkable safety record of a 0.35 recordable injury rate with the final 13 months of construction (3 million work hours) completed without a single recordable event
- Sustainability efforts include; heat recovery system, low emissivity glazing, PV solar, EV charging, 'wilding' of green spaces



2cm

19E0060\_689\_1-20



5cm

19E0060\_24\_1



5cm








# ISPE Facility of the Year for 2023

- ISPE's (**International Society for Professional Engineers**) Facility of the Year Awards is an annual program that recognizes state-of-the-art projects unitizing new technologies to improve the quality of products, to reduce the cost of producing high-quality medicines, and demonstrate advances in project delivery
- Winners in the category of Operations exemplify the application of novel tools and approaches to delivering projects





# Ireland will Deliver High Revenue & Profitability

Signed Commercial Contracts		MFG	Scale (FB)	Est. Batches/Yr.
	<b>Pharma A</b>	Perfusion	1K	30+
	<b>Pharma B</b>	Fed Batch	12K	10+
	<b>Pharma C</b>	Fed Batch	16K	6+
	<b>Pharma D</b>	Fed Batch	8K	20+
	<b>Pharma E</b>	Fed Batch	12K	15+
	<b>Pharma F</b>	Fed Batch	12K	13+
	<b>Pharma G</b>	Fed Batch	12K	20+



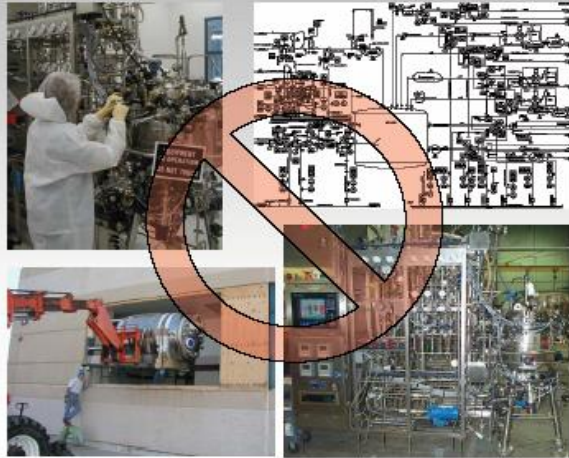
**Significant commercial manufacturing from 2024 onwards, almost fully booked in 2025**  
**30% projects transferred from China as global dual sourcing ie follow the molecule**  
**70% win the molecule for all potential blockbuster biologics**

**Disposables achieved  
multiple ton scale with  
similar COGS**

**03**

# TECHNOLOGY: Disposable Manufacturing Technology Proven Effective in Commercial Manufacturing

## 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 in using disposable manufacturing technology
- 4,000kg+ neutralizing mAbs delivered 12,000/16000L scale
- COGS reduced to <US\$80/g at 12,000L scale, comparable COGS with similar stainless steel
- 1,500+ batches manufactured at ~98% success rate
- Less CAPEX, faster in building facilities (one year) and comparable COGS resulting in higher ROI (MFG1 10-year ROI 51% realized, MFG2 35%, MFG3 50% expected)

# Disposable Bioreactors CAN Deliver Lower COGS than Stainless Steel

Scale of Disposable Bioreactors	Scale of Stainless Steel Bioreactors	Cost Difference	Manufacturing Experience at WuXi Biologics
2,000L	12,000L	Disposable ~30% more expensive	MFG1 500+ batches
6 x 2,000L	12,000L	Disposable ~10% cheaper	MFG2 50+ batches
3 x 4,000L	12,000L	Disposable ~10% cheaper	MFG5 20+ batches
6 x 4,000L	12,000L	Disposable ~20% cheaper	MFG9
6 x 4,000L	25,000L	Disposable ~10% cheaper	MFG9
2,000L Wuxi UP™	2,000L	Disposable ~30% cheaper	MFG1/MFG2 50+ batches
2,000L WuXiUP™	12,000L	Disposable ~10% cheaper	MFG1/MFG2 50+ batches

- Through scale-out (multiple-pack of disposable bioreactors) and WuXiUP™, disposable bioreactors can achieve **similar or lower** COGS as any stainless steel bioreactors
- Supported with **100+** batches of data across **10+** projects at WuXi Biologics



# Disruptive Single-Use Technology Pioneered by WuXi Bio

## ~44% Market Share in New Capacity, 65-70% in R&D

### The Advantages of Single-Use Bioreactor



Less water resource consumed



No detergent, more environmental- friendly

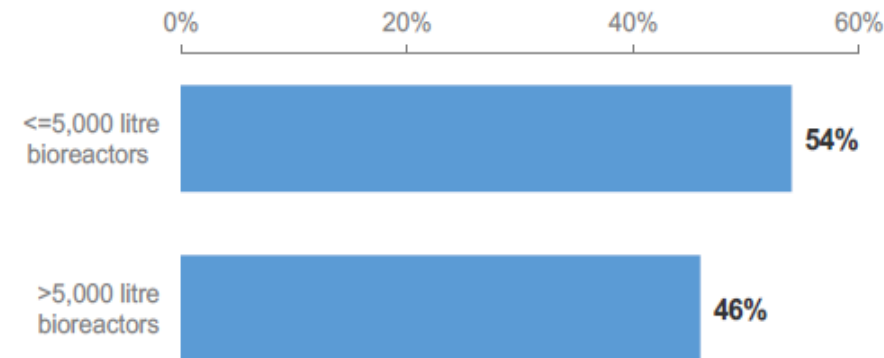


Save projects switching time, more flexible, less CAPEX intensive

### Single-Use Bioreactor Capacity Expansion and its Penetration Rate



### Biotech Companies Use more Single-Use Bioreactors for Capacity Expansion



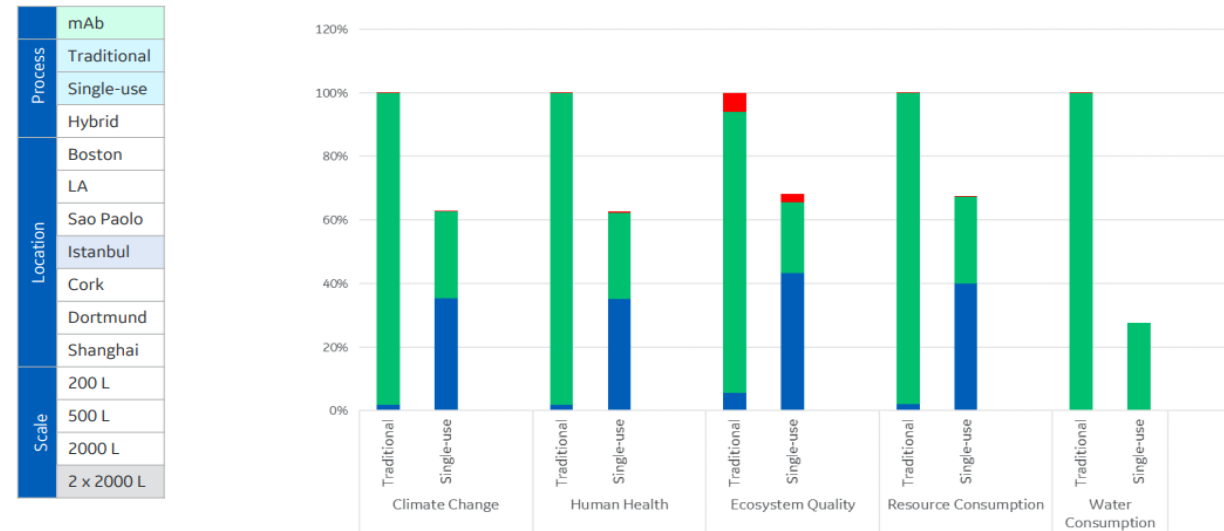
### The Application Rate of Single-Use Bioreactors in R&D and CMO Stage



# Embracing ESG-friendly Disposable Technology to Protect Environment

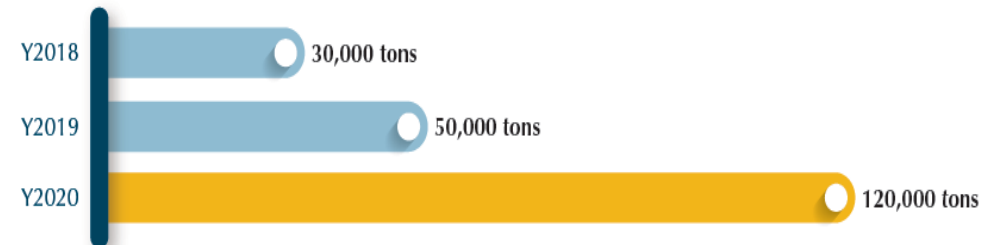
- Launched one of the world's largest cGMP biologics manufacturing facilities using disposable bioreactors in Wuxi
- Significantly reduced the impact on environment
  - 70% water saving
  - 33% energy saving
  - 0 waste water generation
- Other advantages include:
  - Accelerate the R&D process
  - Improve product quality
  - Enhance production efficiency

## Impact comparison for traditional and single-use process technologies



Single-Use Technology and Sustainability | 2017 BPSA International Single-Use Summit | 13 July 2017

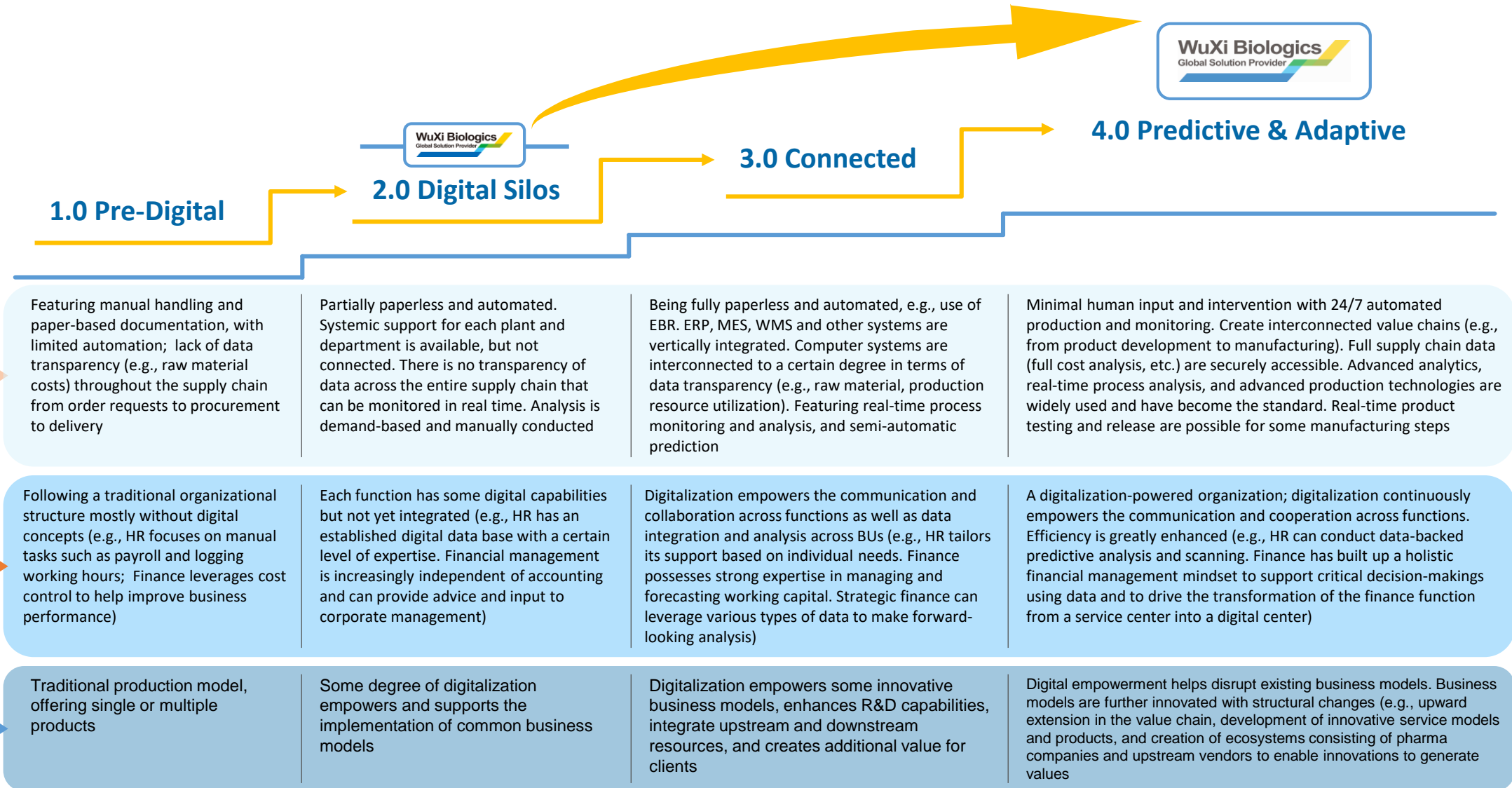
## Annual water savings due to the adoption of SUT (estimated value)



**Digital & AI drives  
Continued Success  
of WuXi Biologics**

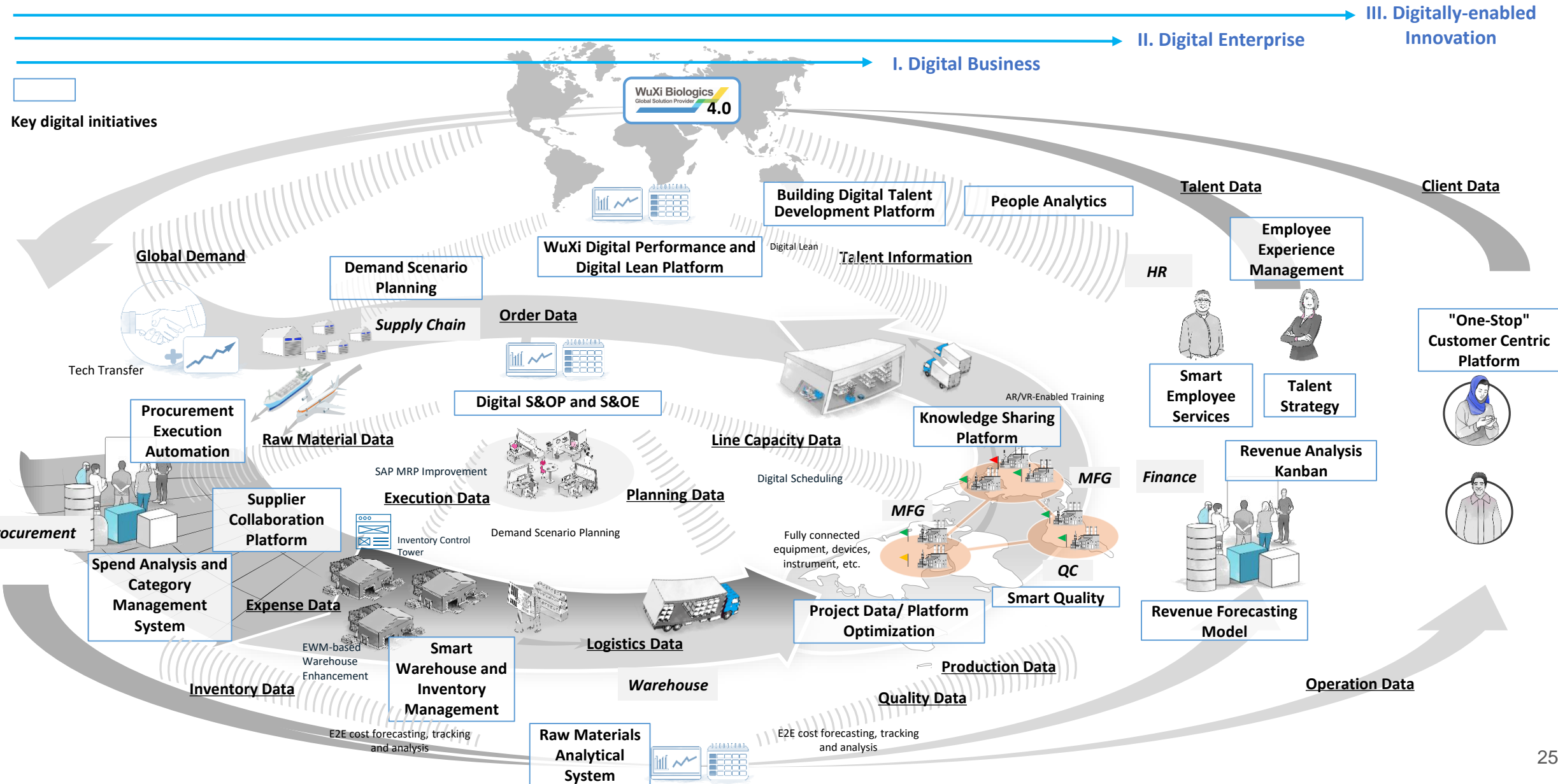
**04**

# WuXi Biologics Aspires to Become a Digital 4.0 Enterprise



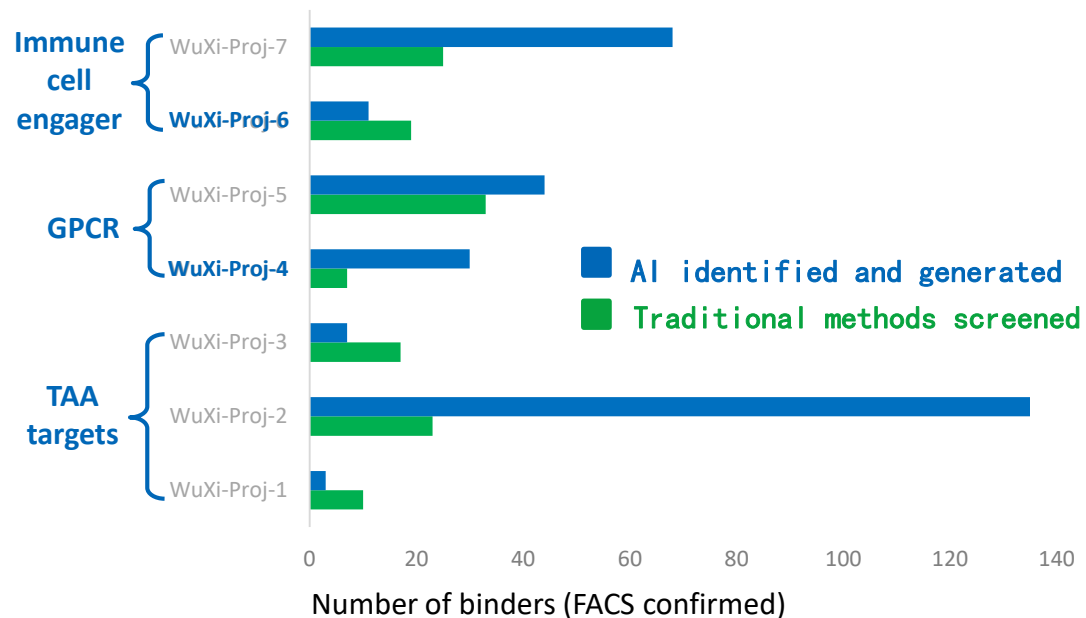
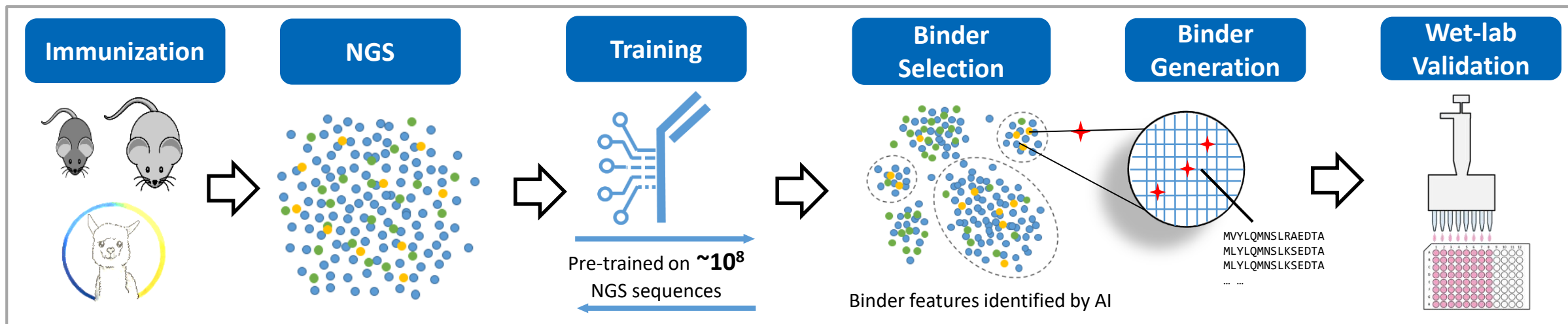


# Illustrative Future State of WuXi Biologics Digitalization



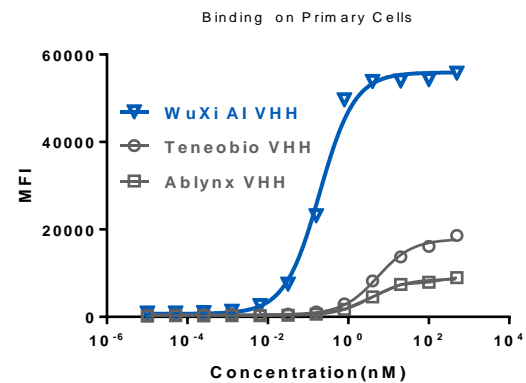
# AI Integrated Antibody Discovery (2021)

## Proprietary AI Tools Routinely Solve Various Challenges in Lead Identification

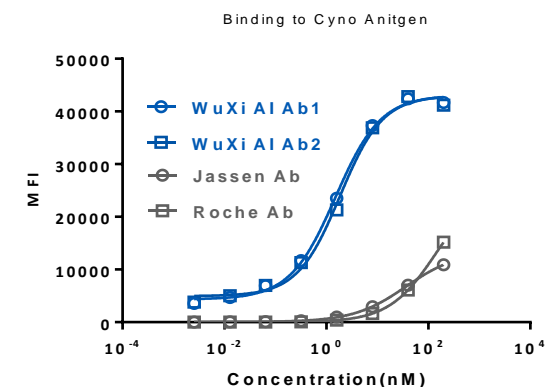


### AI recognized unique sequences exhibiting superior binding property

**WuXi-Proj-6: Superior binding to a difficult target, which can better active immune cell**



**WuXi-Proj-4: Solved the challenge of human-cyno cross reactivity for a GPCR target**

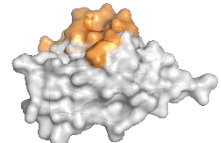


# AI Empowered Antibody Generation

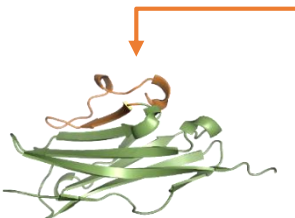
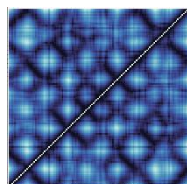
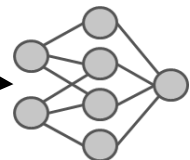
## Developing AI Models that Can Generate Epitope-specific Antibodies

### AI Empowered Antigen Design

Aimed epitope,  
convey special  
biological signal



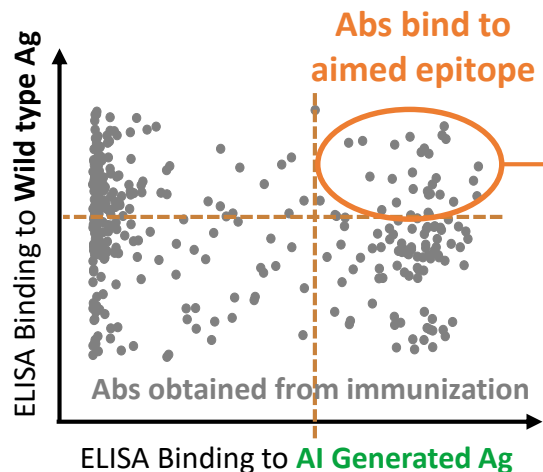
Structure diffusion



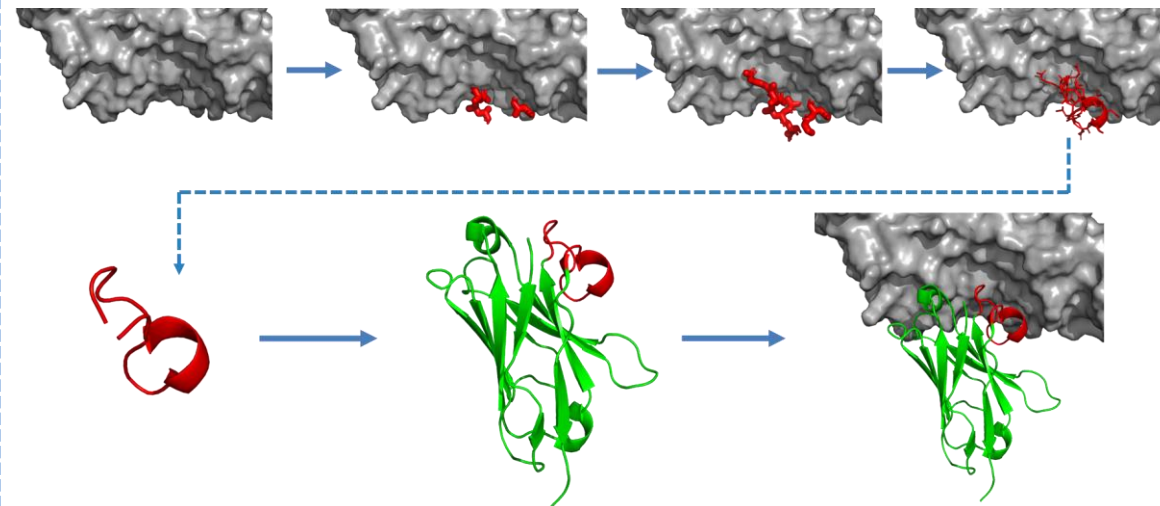
Scaffold hallucination  
AI generated Ag

### Achieved epitope-specific antibody generation!

- Leveraging animal's immune system and AI designed antigen that holds the specific epitope structure
- POC in a practical immune checkpoint project (WuXi-Proj-8)



### De novo Antibody Generation



- Developing WuXi Biologics leading proprietary *de novo* antibody generation model.
- A POC test for an infectious disease target is currently undergoing wet-lab binding validation!

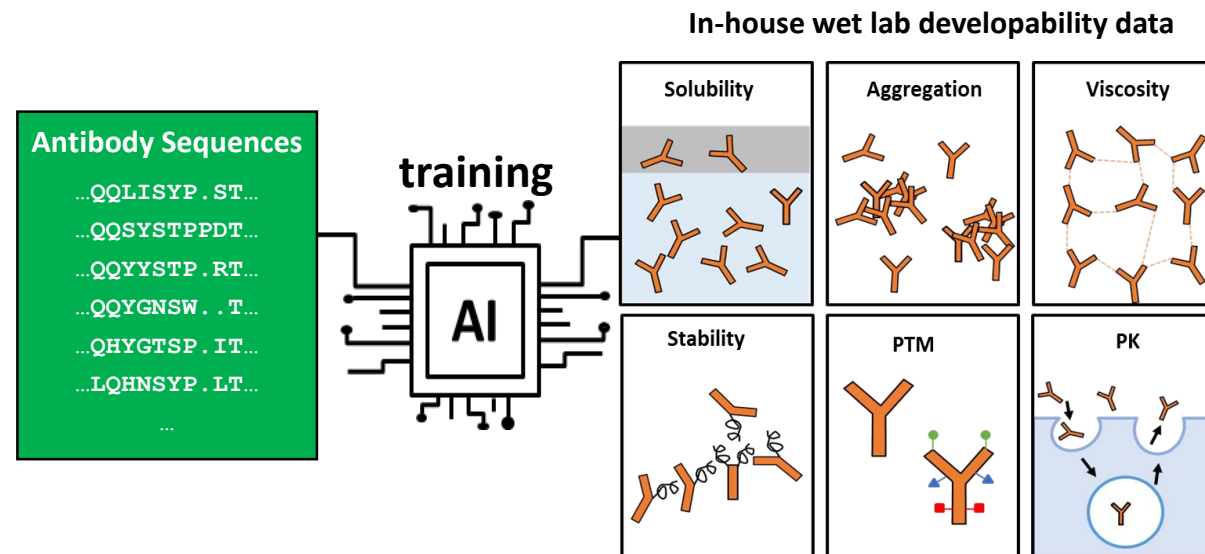
# AI Guided Antibody Optimization

## Sequence Optimization is Guided by AI Model Trained with Developability Data

Sophisticated AI model detects flaws in antibody sequences causing developability issues and proposes engineering strategies.

We have gone far beyond the algorithm stage!

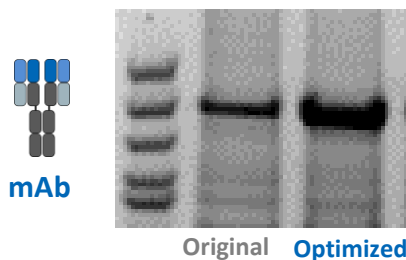
Successful developability engineering in **30+** projects (affinity and function unchanged) !



Typical examples:

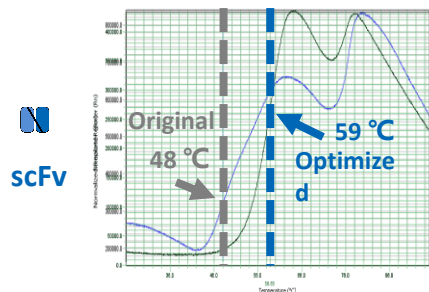
### Expression

WuXi-Proj-9  
Expression increased 7-fold



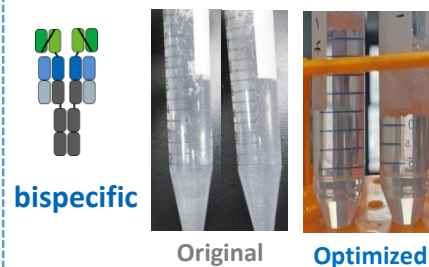
### Stability

WuXi-Proj-10  
Thermal stability enhanced 11 ° C



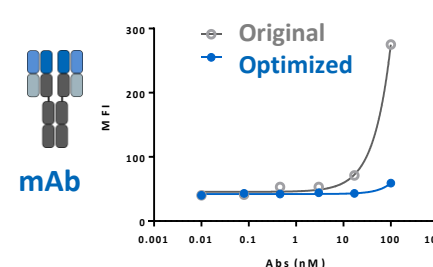
### Aggregation

Wuxi-Proj-11  
Precipitation solved



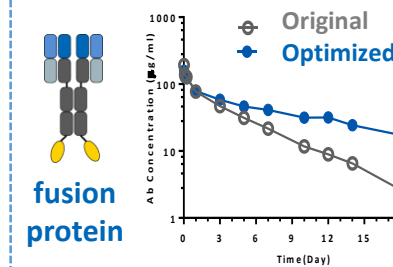
### Non-specific Binding

WuXi-Proj-12  
Non-specific binding eliminated



### Pharmacokinetics

WuXi-Proj-13  
PK T-half increased 160 hours



# AI Codon Optimization for Cell Line Development (2020)

## Key Tool that Enabled Record Speed for COVID-19 mAb Development


- **WuXi Codon**
  - Average titer: **5.9g/L** for mAbs
  - 80% projects **>5g/L**
- **HT NGS of plasmids and clones**
  - **No** sequence variants
  - **Accelerated** biosafety testing
- **IND timeline vs traditional 12-18 months**
  - **Pool: ~3 month Gen1 IND**
  - **Clone: 5-6 month Gen2 IND**

Received: 24 March 2021 | Revised: 12 June 2021 | Accepted: 17 June 2021  
DOI: 10.1002/btpr.3186

### RESEARCH ARTICLE

BIOTECHNOLOGY  
PROGRESS

## Reshaping cell line development and CMC strategy for fast responses to pandemic outbreak

Zheng Zhang | Ji Chen  | Junghao Wang | Qiao Gao | Zhujun Ma |  
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### Abstract

The global pandemic outbreak COVID-19 (SARS-COV-2), has prompted many pharmaceutical companies to develop vaccines and therapeutic biologics for its prevention and treatment. Most of the therapeutic biologics are common human IgG antibodies, which were identified by next-generation sequencing (NGS) with the B cells from the convalescent patients. To fight against pandemic outbreaks like COVID-19, biologics development strategies need to be optimized to speed up the timeline. Since the advent of therapeutic biologics, strategies of transfection and cell line selection have been continuously improved for greater productivity and efficiency. NGS has also been implemented for accelerated cell bank testing. These recent advances enable us to rethink and reshape the chemistry, manufacturing, and controls (CMC) strategy in order to start supplying Good Manufacturing Practices (GMP) materials for clinical trials as soon as possible. We elucidated an accelerated CMC workflow for biologics, including using GMP-compliant pool materials for phase I clinical trials, selecting the final clone with product quality similar to that of phase I materials for late-stage development and commercial production.

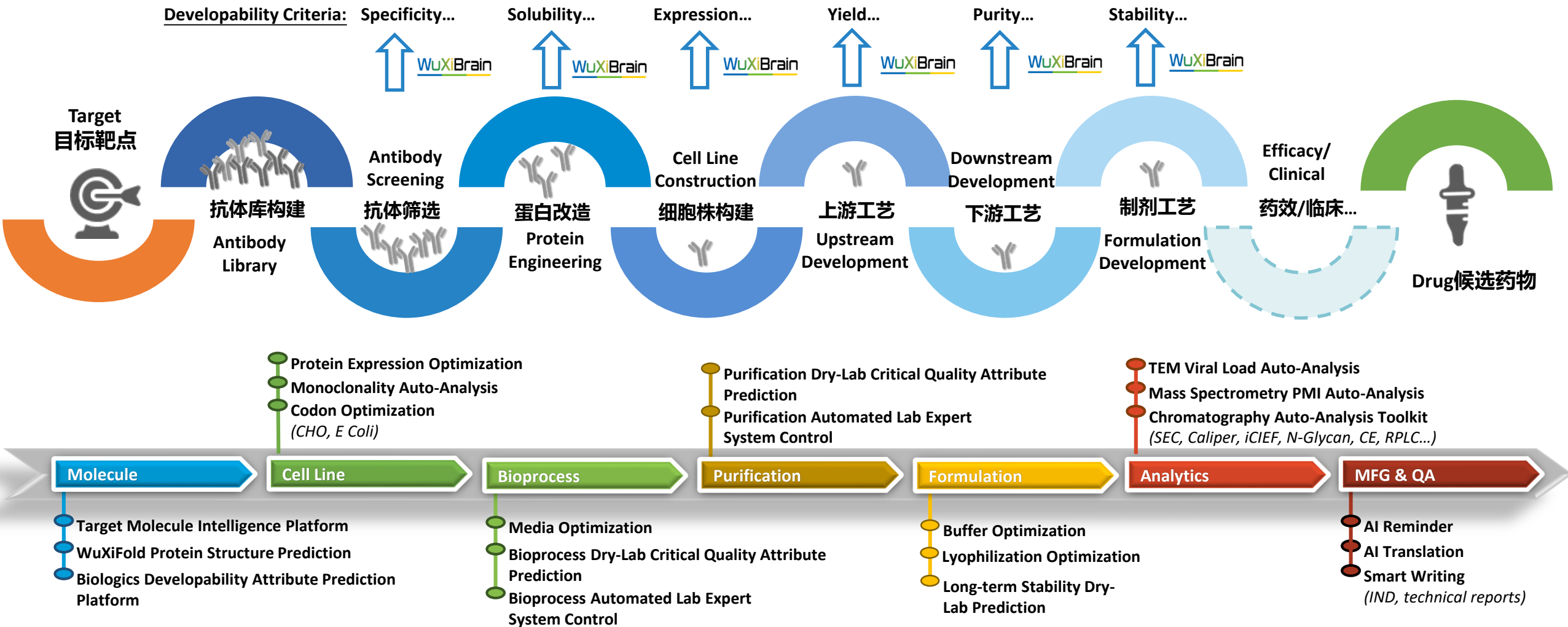
### KEYWORDS

CMC for biologics, COVID-19, mammalian cell line development, next-generation sequencing



# WuXiBrain Enables Developability's Unique Strength

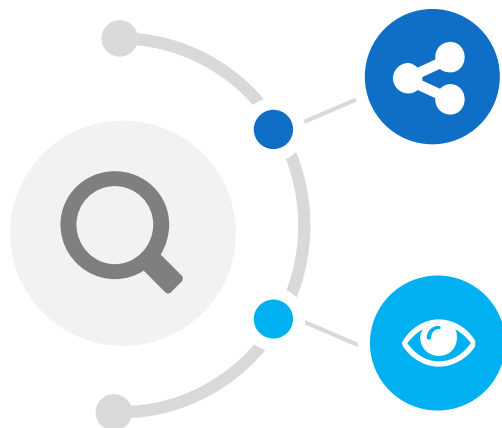
Developability issues can occur throughout the entire drug development process...



# Bioreactor Dry-lab

## Scenario

All biologics drug development require large amount of experiments using bioreactors, which consumes time, FTE, and material. AI model can recommend optimized experiment designs to expedite drug development bioprocess

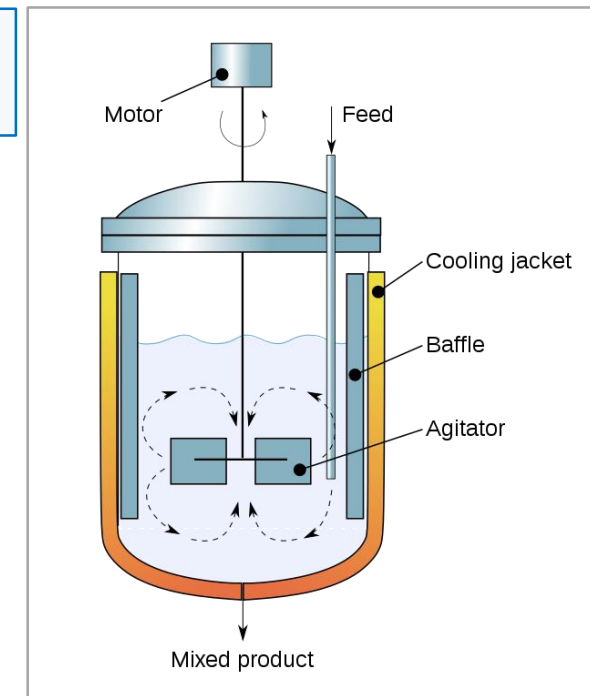


### 1) Optimized Experiment Design

- Bioreactor experiments for new drugs typically require human experiment and trial-and-error to develop optimal bioprocess strategy
- AI model can recommend optimized bioprocess strategy and experiment designs based on historical data of similar drugs

### 2) Bioprocess monitoring and safeguard

- Bioprocess experiments last for weeks, and any unexpected fluctuations in experimental procedure can cause failure
- AI model can adjust predictions for final experiment result based on daily fluctuations in procedure, and recommend strategies to salvage potential failures

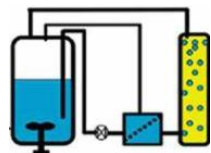


## AI Model Results:

### Wet-Lab Experiment Design



AI vs. Current Best Batch Experiment



14 Day Bioprocess Experiment

AI accurately predicts 14-day  
experiment yield  
(95+% accuracy)



### Wet-Lab Experiment Result



2x development speed

14 Batches -> 7 Batches

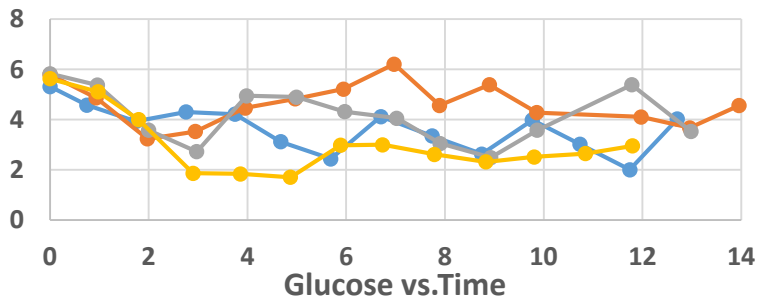
# Bioreactor Dry-lab + Smart Automated Lab Results

## 2020: Forecast experiment protocol for users

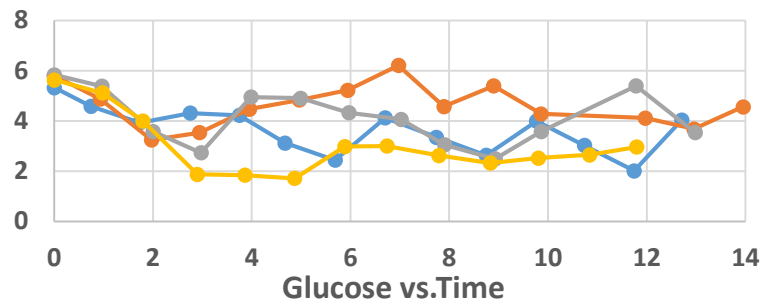
## 2022: Automatically adjust feed schedule

## 2023: Suggest Exp. Protocol for Yield+CQA

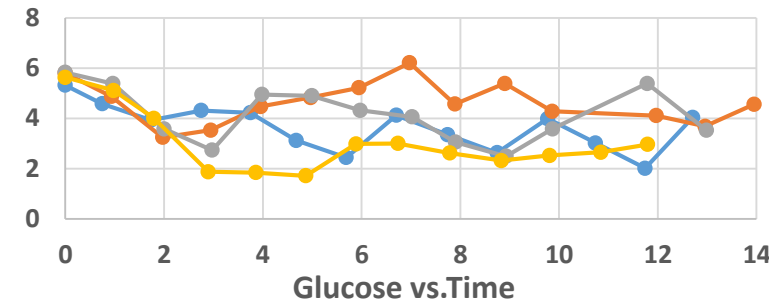
pH vs.Time



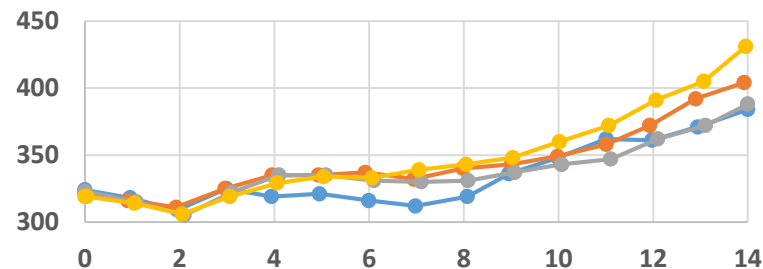
Feed vs.Time



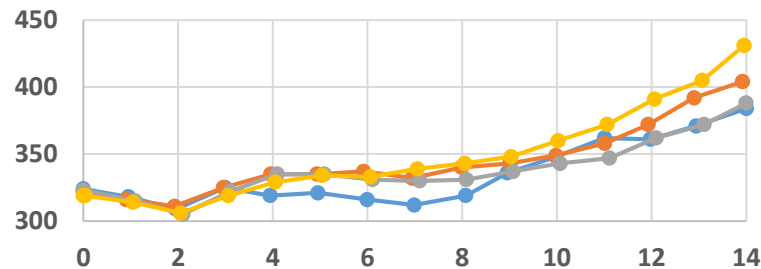
Feed vs.Time



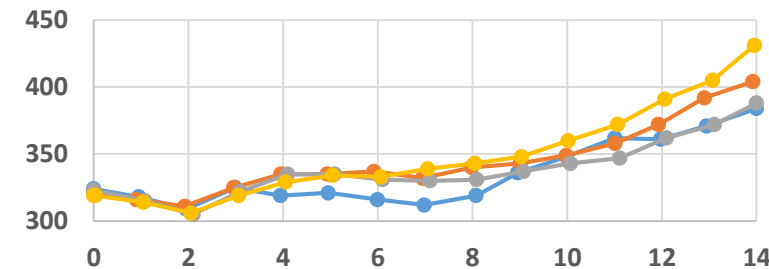
Glucose vs.Time



Glucose vs.Time



Glucose vs.Time



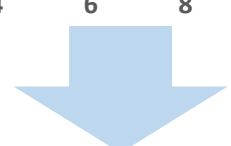
### 2 Wet-lab Experiment Tests: ~95% accurate

project	A/B	Cedex Titer	HPLC
1	Model	4246mg/L	5170mg/L
	control	4070mg/L	4890mg/L
2	Model	3128mg/L	3655mg/L
	control	3246mg/L	3960mg/L



### 2 Wet-lab Experiment Tests: ~95% accurate

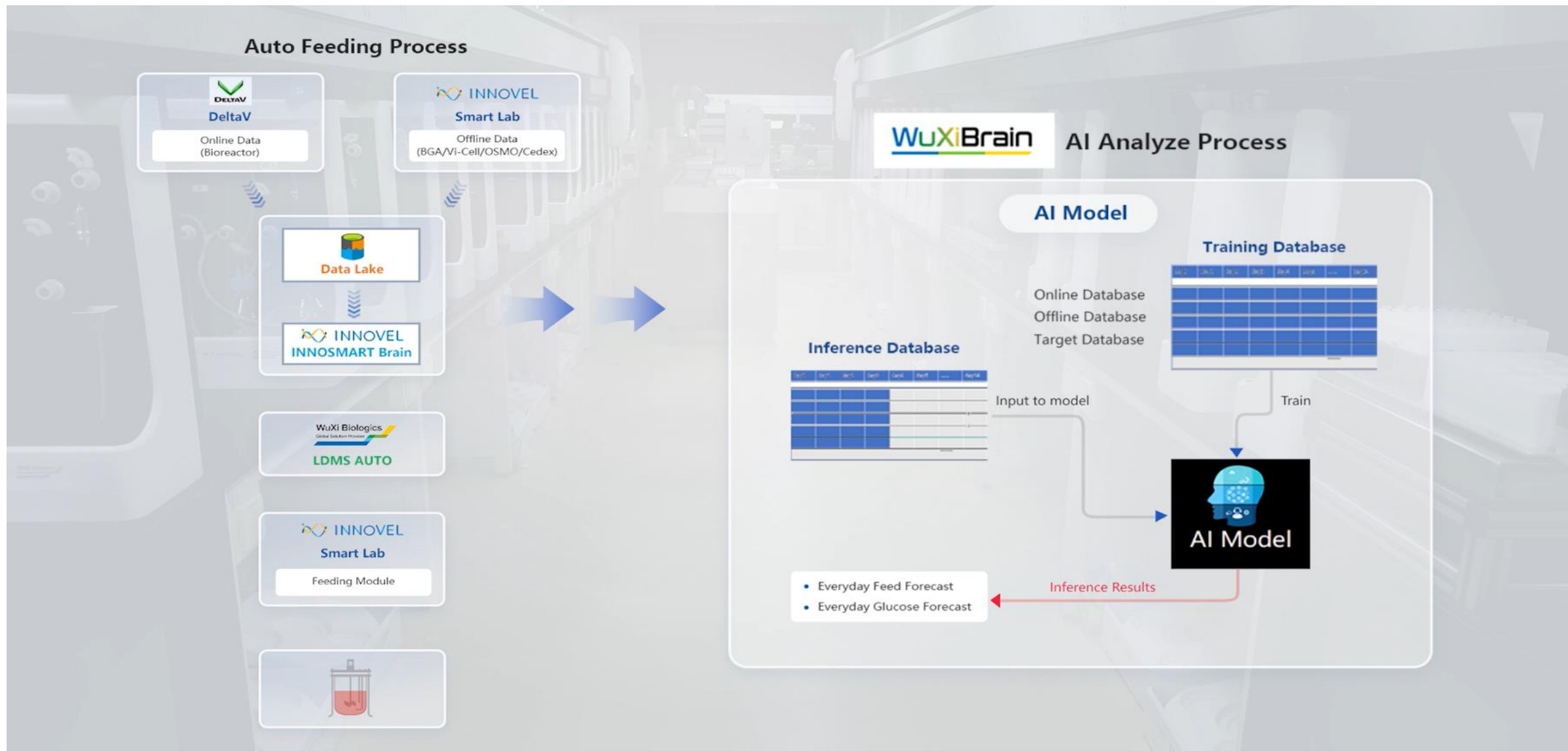
2 experiment batches are automation ready  
AI model recommended feed schedule is identical to optimal feed schedule



CQA improvement: Titer + Man 5 SEC

CPP Improvement: features from online, offline, LIMS, feed, sequence, cell line data

# Auto Feeding-AI Analyzed Process



# Automated A to Z in Biologics Development

## 5 Automated Systems Launched in Research & Development Labs



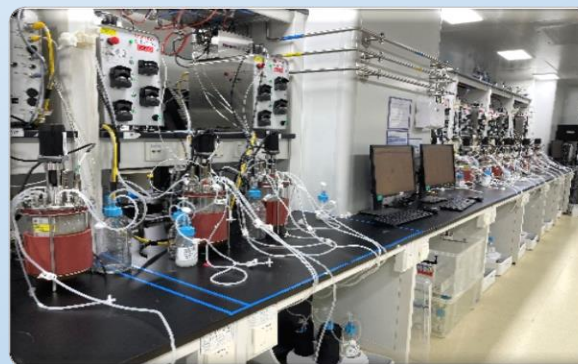
**HTP Gene Synthesis Smart Platform**



**Smart Cell Line Development System**



**HTP pDNA Maxiprep Platform**



**Smart Lab of Bioreactors**



**uHTP Smart Protein Production System**



# Smart Lab Enables Faster, Better, Cheaper and Smarter Development

**32 BRs**

Running in parallel

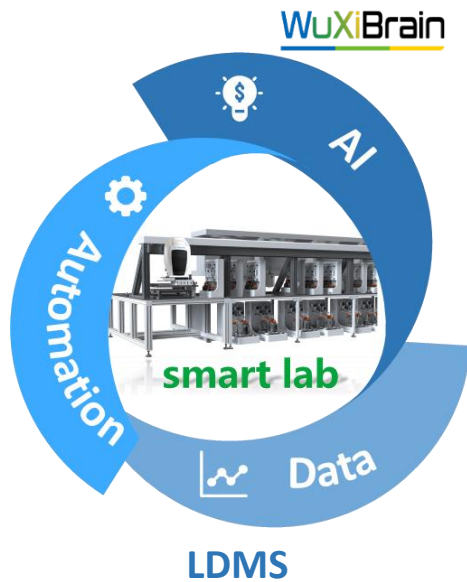
**5**

Individual module

**17 Projects\***

Applied Successfully

\* Includes 1 PC project



**Benefits**

**50%**

Labor cost reduce

**7×24 h**

“Dark Lab”



Bioreactor success rate



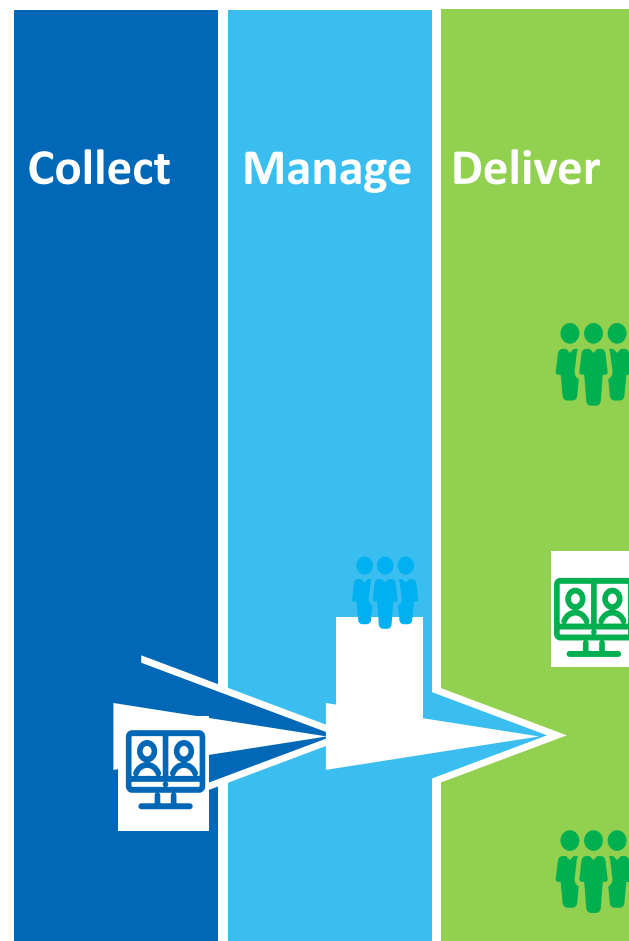
EHS/5S issues

# Digitalized Plant Framework and Smart Applications

## PAS For Manufacturing Cycle



## PI Data Infrastructure



## Wuxi Intelligent Apps

### Gasket Care

Smart Maintenance (valve, pump, agitator)

Smart Operation and Diagnostics

Smart Alerting System

Aseptic Monitoring

Transitional Analysis of Running Column

Golden Batch MVA for Prediction

Digital Twin

# Digital Twin First Implementation in MFG5 (2021)

## Engineering Environment

Connect with expert with no geographic constraint

## Process Control Design

Design, build and test with control strategy

## Operator Training System (OTS)

Train operator with simulated process anomaly

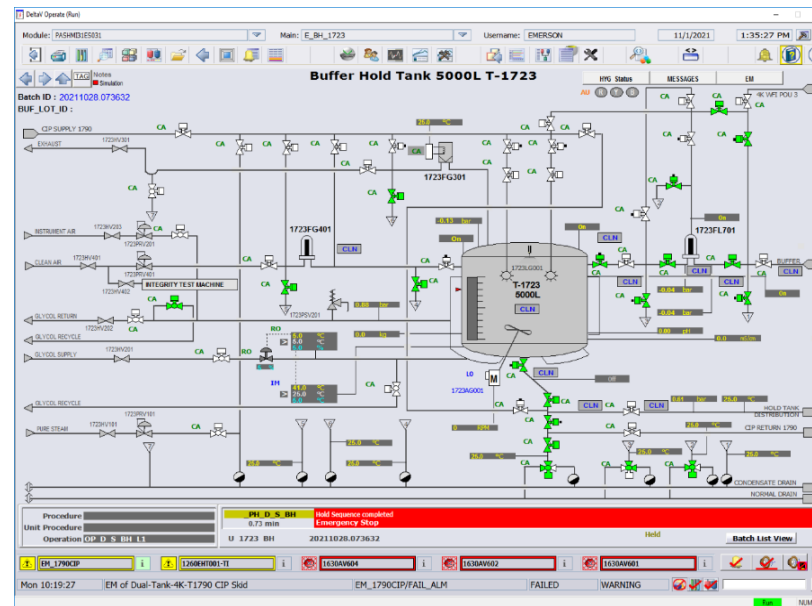
## Process Optimization

Virtual process upgrade and test before a GMP change is made



**Operating Model** *Dynamic process model*

**Data Structure** *Mechanism, parameter and configuration data*



## Go-live in Nov. 2021

- Facilitate control strategy test in emulated DeltaV environment
- Support OJT on Mimic system with scenario development
- Improve effectiveness and convenience in operator training
- New Product introduction becomes easier with simulation
- Support quick pace for change
- Investigate operation variation and troubleshooting



# Smart Reminder for Manufacture Operation & Quality Management

## Gowning Check Reminder

Remind people wearing hair caps correctly, safety glasses, masks, gloves, shoe covers, clothes



Gowning Check

## Speed Reminder

Speed rate detection, moving speed > 5m/S is defined as running



Speed Reminder

## MFG Capacity Reminder

Control the maximum number of people in the current lab



Lab Capacity Reminder

## Cross Line Reminder

Remind people not to enter sensitive areas with the cross line sign



Cross Line Reminder

## Disinfection Reminder

Remind people to disinfect their hands with alcohol every 30 ms in the lab



Disinfection Reminder

## MFG Log Reminder

Remind people to log the record before and after experiment



Lab Log Reminder



10 + More Upcoming

## People Health & Mood Reminder

Monitor health happiness and mood indications such as the heart rhythm, temperature and mood

## Push Door Reminder

Remind people not to push the lab door with hand, by their hand movement



Push Door Reminder

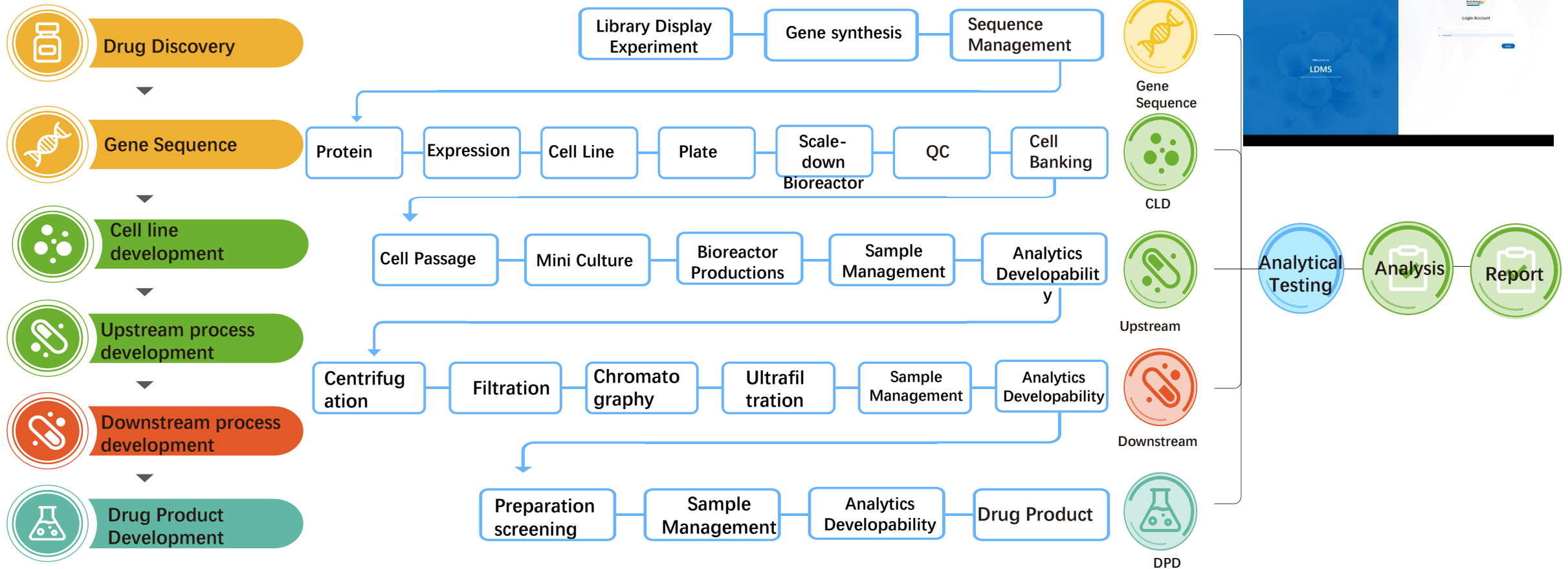
# WuXi Proprietary LDMS Built Up the Electronic Records and Data Foundation

**100%**  
Paper Less

**~700**  
Projects

**224720\***  
Experiments Record

\* Since 2021





# Smart Writing Enables Automated Reports for Efficiency Client Satisfactory



**10**  
IND Reports

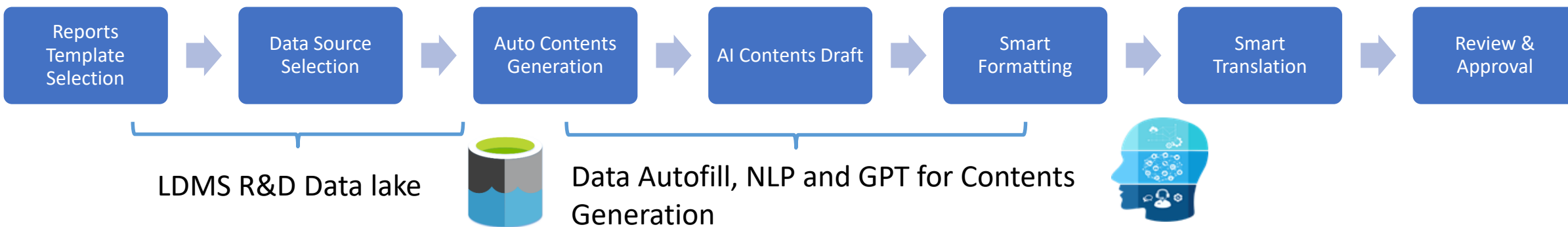
**2900**  
PD Reports

**500**  
Quality Reports

**200**  
MFG Reports

**Benefits**

**Save 1/3**  
FTE Time



**Business Update**

***05***

### Arcus Biosciences Expands Strategic Relationship with WuXi Biologics to Develop a Best-in-Class anti-CD39 Antibody for the Treatment of Cancer

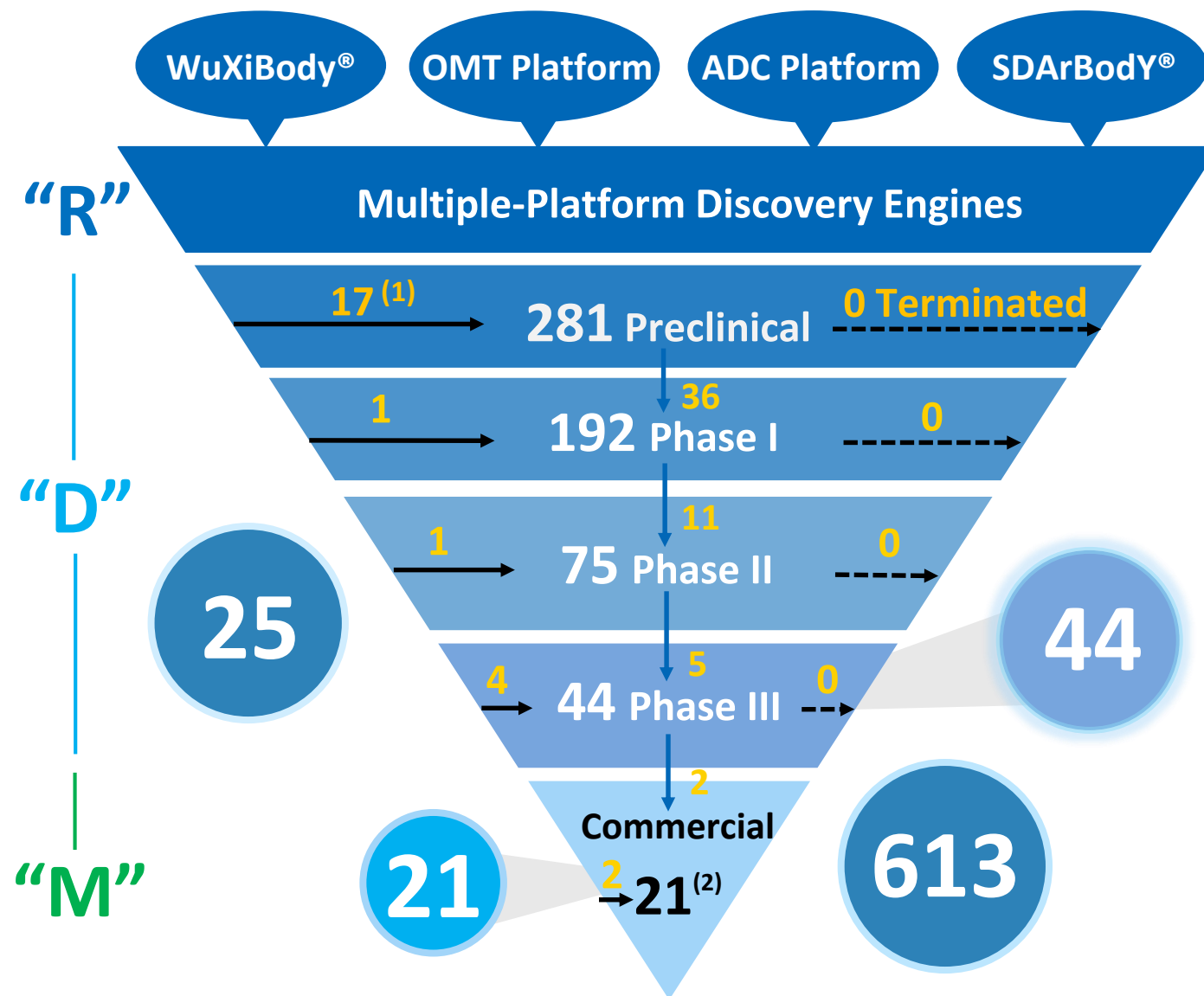
- The parties will discover anti-CD39 antibodies using WuXi Bio's proprietary technology.
- This CD39 collaboration represents the fourth antibody development program on which the two companies have joined forces.
- Arcus was granted exclusive worldwide rights to anti-CD39 antibodies discovered under the collaboration and will be responsible for all further development and commercialization activities of such anti-CD39 antibodies.

### WuXi Biologics and GSK Enter into License Agreement on Multiple Novel Bi- & Multi-specific T Cell Engagers

- WuXi Biologics will provide an exclusive license to GSK for 1 preclinical bispecific T cell engaging (TCE) antibody and 3 additional bi-/multi-specific TCE antibodies developed using WuXi Biologics' proprietary technology platforms
- WuXi Biologics will receive an upfront payment of US\$40 million, up to ~US\$1.4 billion at key milestones and tiered royalties on net sales

# Soft Growth in Pre-clinical balanced with Strong Growth in Phase III & CMO Drive 2X industry growth

- Biotech funding slowdown especially in China resulted in softer growth in pre-clinical stage. Only observed 6Q into the cycle still highlighted our leadership position.
- Anticipate similar market share as the acceptance rate for WuXi is similar. Sales cycle extension is the reason for the lower No. of projects
- Q4 2022 drive to sign record numbers of projects also pulled up H1 2023 demands
- **“Win-the-Molecule”** strategy continued to excel: **8** external projects transferred into the pipeline as of May 31, 2023, including **4** phase III projects and **2** CMO for blockbuster products
- **21** CMO projects: superb growth



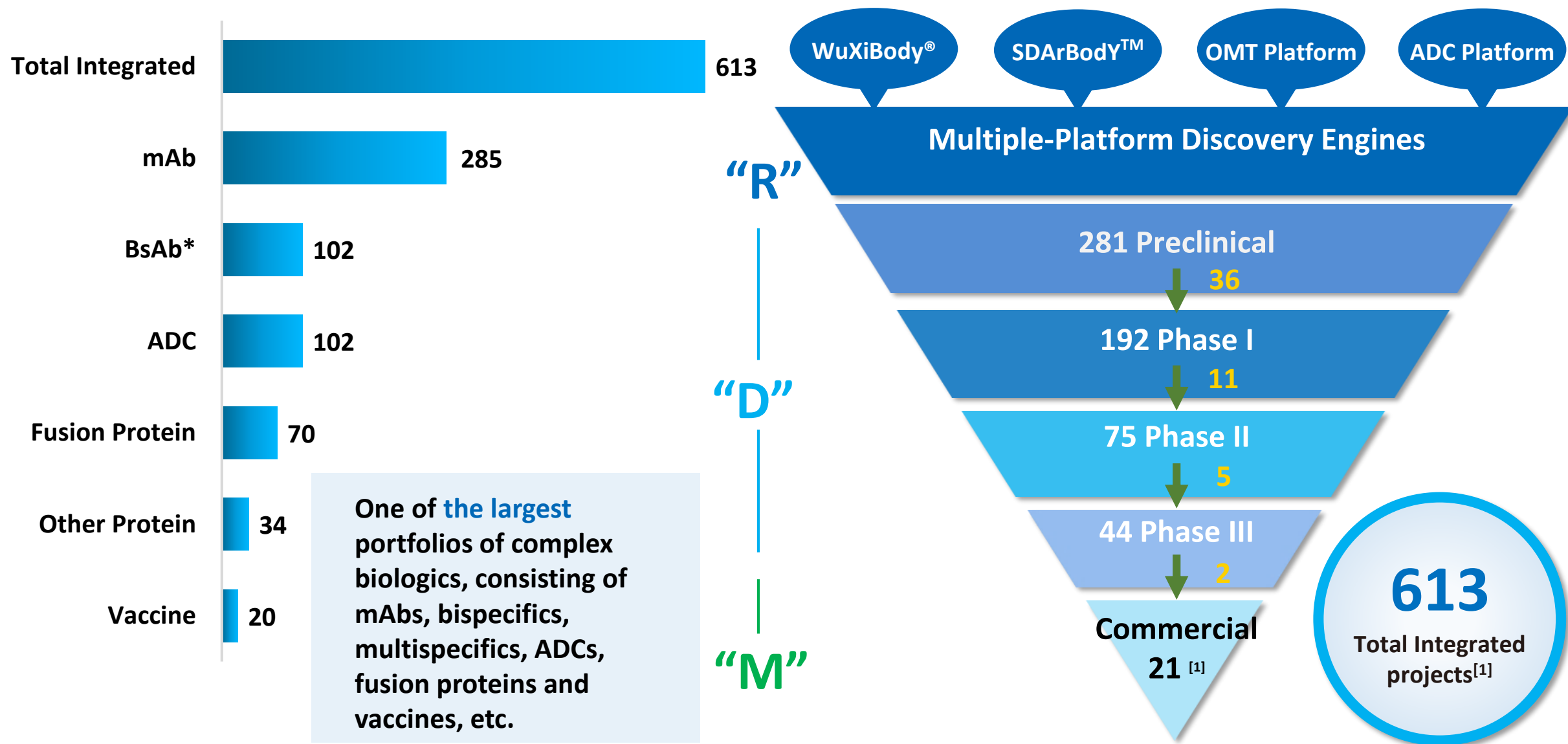
**Notes:**

1. As of May 31, 2023

2. The commercial manufacturing projects refer to the projects approved by regulatory authorities and signed CMO contracts with the Group



# Rich Pipeline across All Biologics Modalities: ADC and BsAb



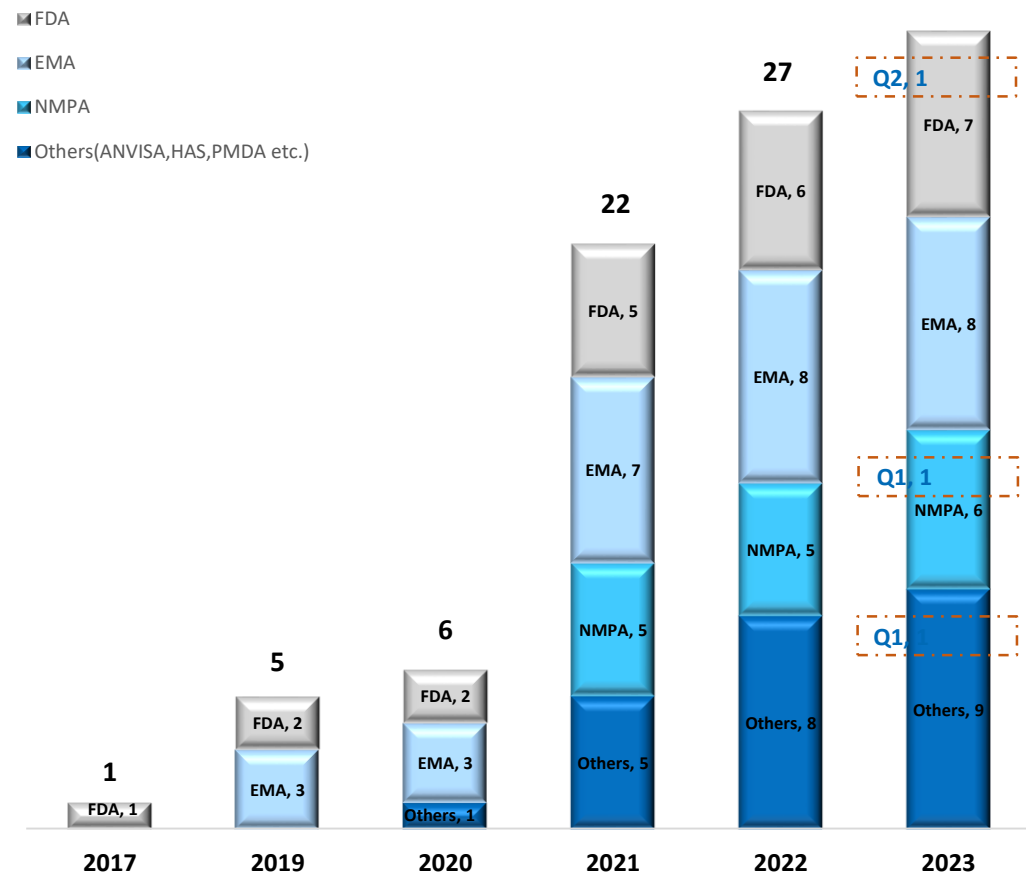
**Notes:**

\* Bispecific Antibody (BsAb) Included both WuXiBody® projects and non-WuXiBody® projects

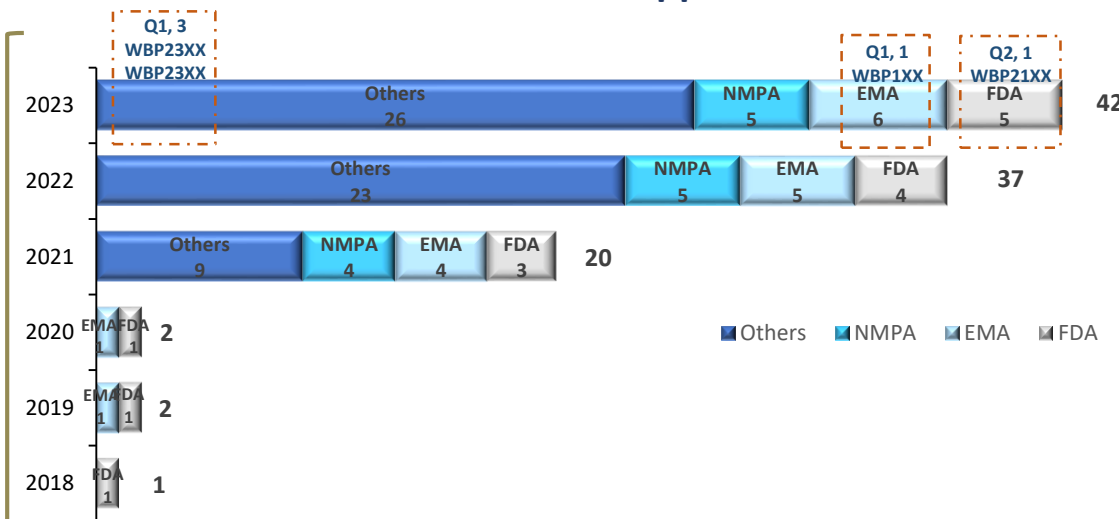
[1] As of May 31, 2023. [2] The commercial manufacturing projects refer to the projects approved by regulatory authorities and signed CMO contracts with the Group

# QUALITY: Global Regulatory Inspections

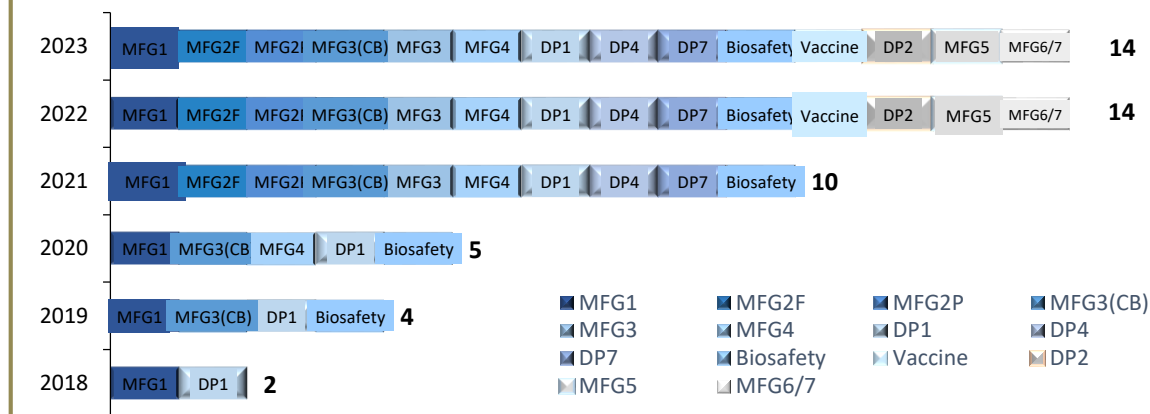
Number of Regulatory Inspections: 30



Number of License Approvals: 42



Number of Certified Facilities: 14



1. 53% of employee are women; 47% of managerial positions and 30% of executive management are female
2. 100% renewable energy combined with disposable manufacturing technologies make Irish manufacturing site “greenest” biologics manufacturing globally
3. Committed to Science Based Targets Initiative (SBTi)
4. 21% YoY reduction in GHG emissions intensity (Scope 1/2 )



# WBS: Continuous Improvement

## CEO Kaizen

**70million**

Cost saving on materials for clinical drug substance manufacturing

**15million**

AS/QC cost saving on testing reagents and consumables

**4batches**

MFG5 capacity increase by buffer preparation method improvement

**30%**

XDP1 capacity increase by reducing change over time

**70%**

QC CoA approval lead time reduction to speed up product release and improve customer satisfaction

Inventory control strategy optimization to significantly reduce Inventory and material impairment

Risk-based material management process optimization to enable more flexibility and agility in material selection and reduce material cost

**Target to improve 300 bps GPM in 2023**



# Summary

**06**

# Evolution of Biologics Service Companies: WuXi Biologics Leading the Industry as CRDMO

## CMO: Contract Manufacturing 1990s – 2000s

- **Business rationale:** mostly 2nd supplier for large pharmas to ensure robust supply chain
- **Core expertise:** large-scale manufacturing

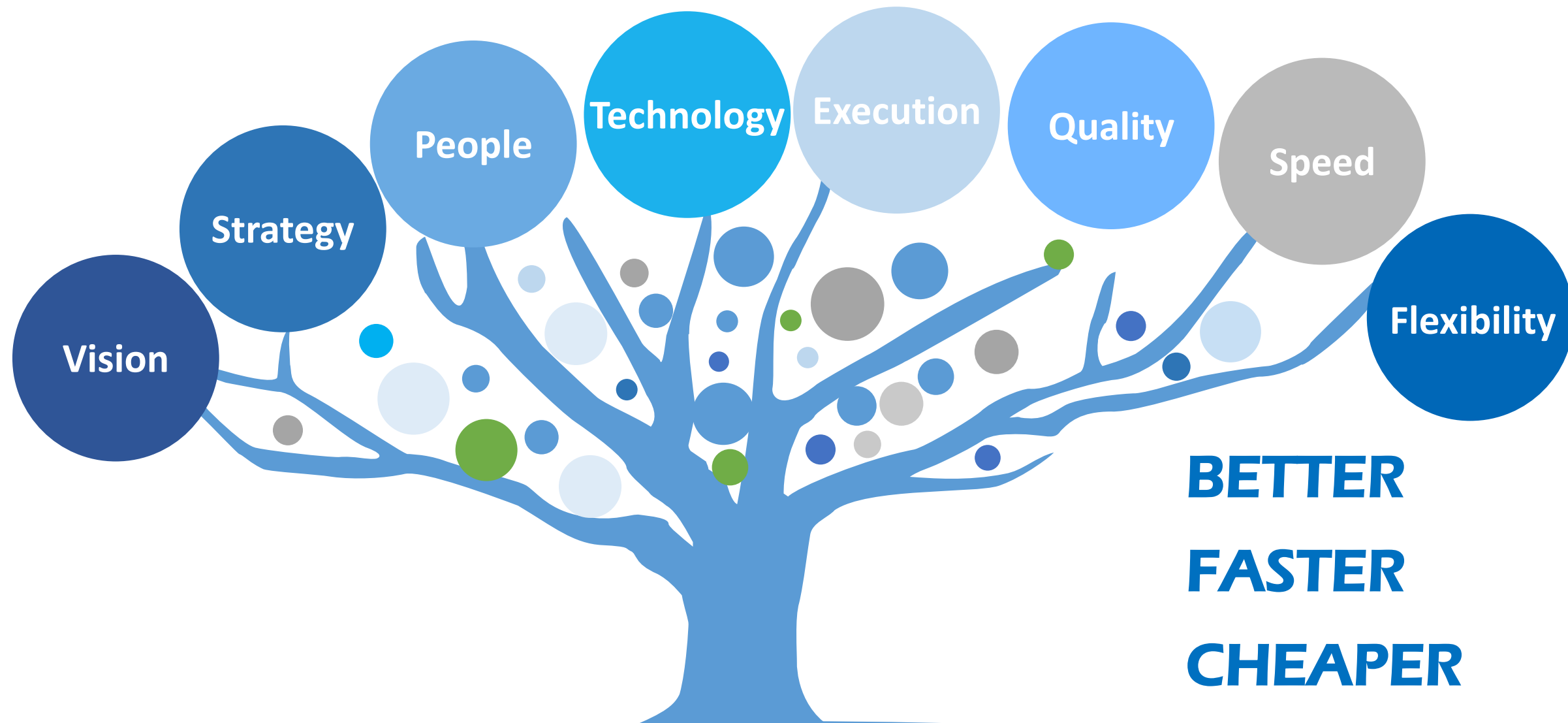
## CDMO: Contract Development and Manufacturing 2000s – 2015s

- **Business Rationale:** small and medium-sized biotechs need end-to-end one-stop shop services and often require external technology for new modalities: ADCs or bispecifics
- **Core expertise:** development technology and large-scale manufacturing

## CRDMO: Contract Research Development and Manufacturing 2015s - present

- **Business Rationale:** innovation driven by small and medium-sized companies requires end-to-end services from ideas to commercial manufacturing
- **Core expertise:** discovery/development platforms and manufacturing
- **Newest trend of service companies:** sticky business model which engages with partners 5-10 years earlier than traditional CMOs

# Eight Keys for Future Success: Sustainable High Growth



# Global Premier CRDMO

## Enable Global Partners and Deliver Sustainable High Growth Despite Recent Challenges

- 1 2X industry growth achievable due to success of both Follow and Win the Molecule strategies. 1H witnessed slower growth of follow the molecule, however win the molecule for phase III and blockbuster commercial drugs accelerated
- 2 Ireland site almost fully booked for 2025 demonstrated great success of strategy and execution: 30% projects transferred from China as global dual sourcing ie follow the molecule and 70% win the molecule for all blockbuster biologics
- 3 Disposable manufacturing proven to deliver multi-ton of mAbs at similar COGS as stainless steel. Flexibility of Disposable technologies: from 100Kg to 10+ tons
- 4 AI have been effectively used in discovery, development and manufacturing for 3+ years. Digital empowered WuXi Biologics will continue to enable faster, better and cheaper services for biologics discovery, development and manufacturing
- 5 Due to high base in 1H 2022 and shutdown for maintenance after three years of bullet train speed, 1H 2023 will see slower revenue growth. Despite all challenges, maintain the full year guidance



# 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

