

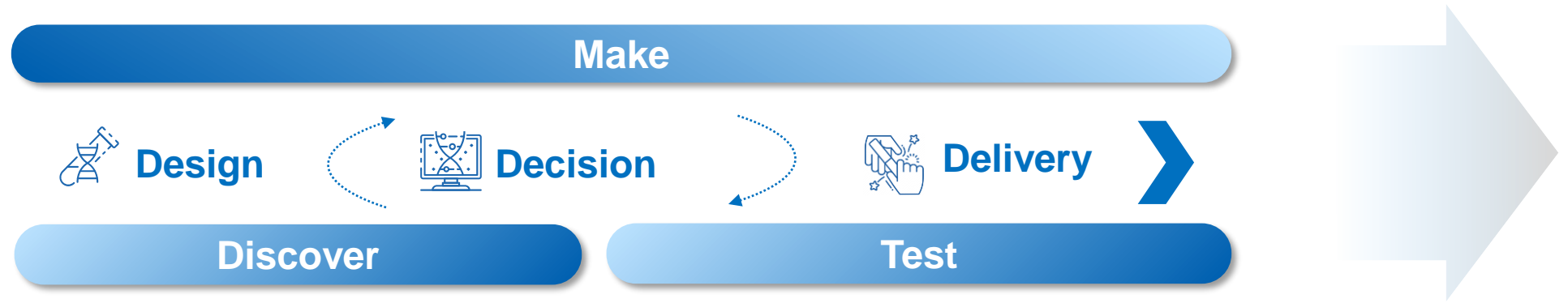


2022 WuXi AppTec Investor Day

WuXi Biology: An End-to-end Discovery Biology Platform

Steve Yang, Ph.D.
Co-CEO

Enable Innovation through Making, Discovering and Testing



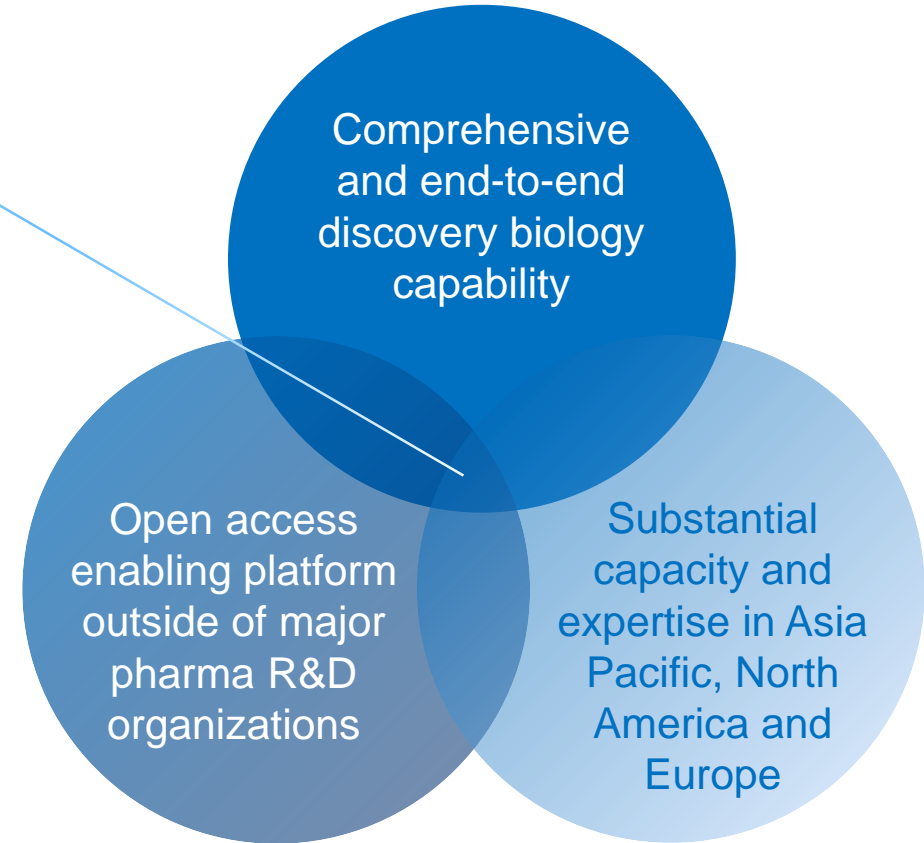
WuXi Biology



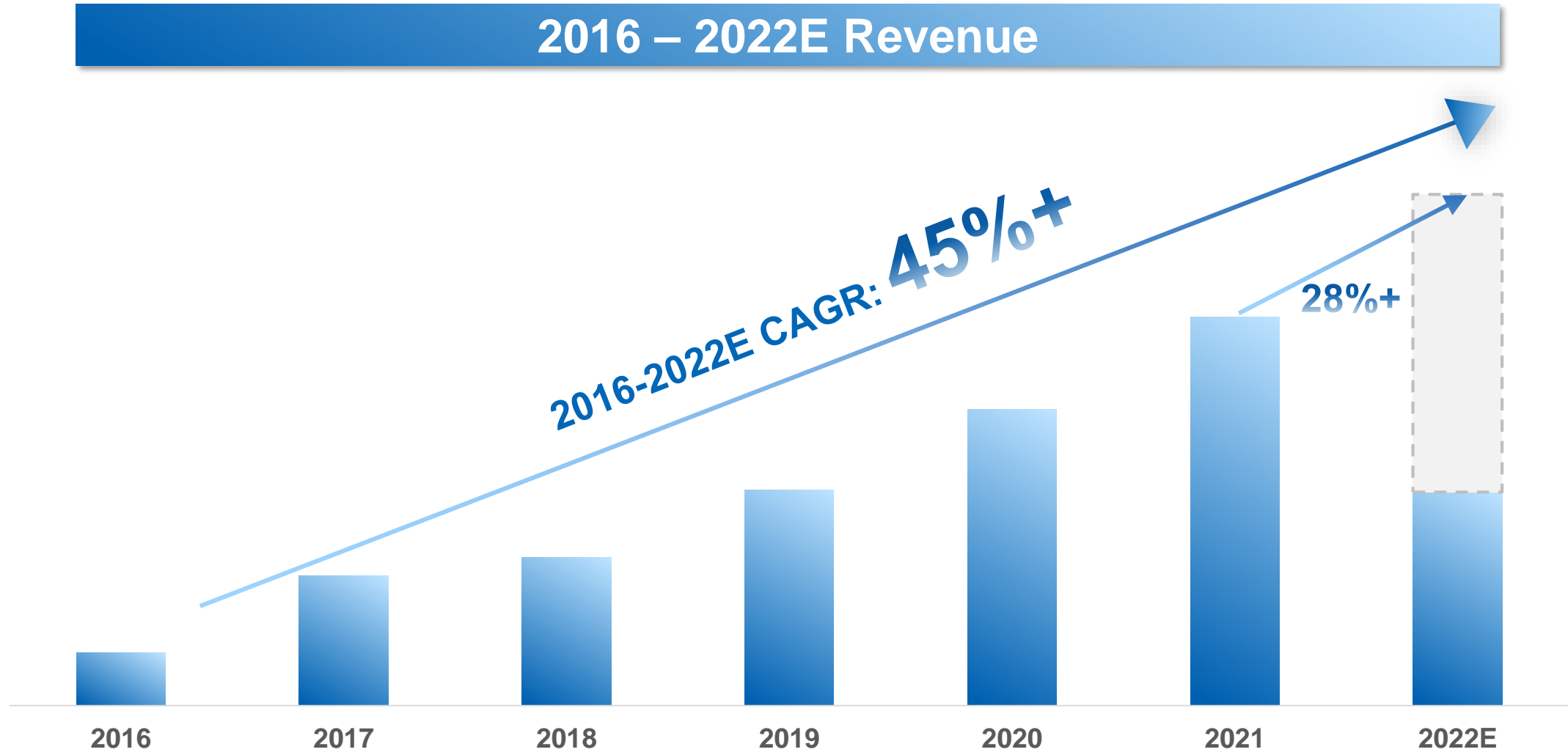
WuXi Biology: An End-to-End Drug Discovery Biology Enabler

- WuXi Biology is the **only** drug discovery biology enabler that meets all three criteria
- WuXi Biology is also one of the most **Comprehensive** drug discovery biology enabling platform
- WuXi Biology is committed to continuous investment in **emerging** technologies
- WuXi Biology is well positioned to **grow** and ride the waves of **scientific breakthroughs** in biology

Drug Discovery Biology



Robust and Continuous Business Growth



A Global Site Network

CHINA



Shanghai (WGQ)



Shanghai (Zhangjiang)



Suzhou



Qidong



Chengdu

UNITED STATES



Boston



Cranbury



San Diego

GERMANY

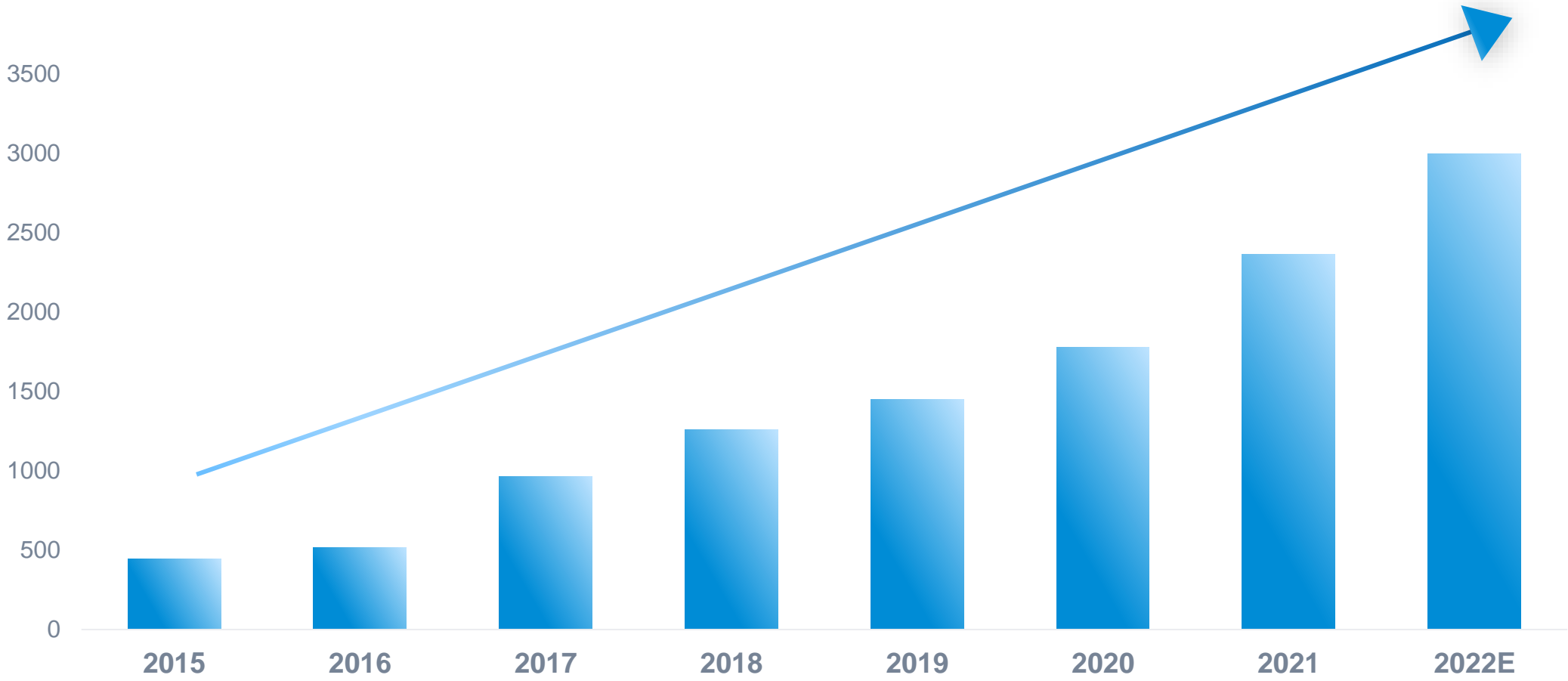


Munich

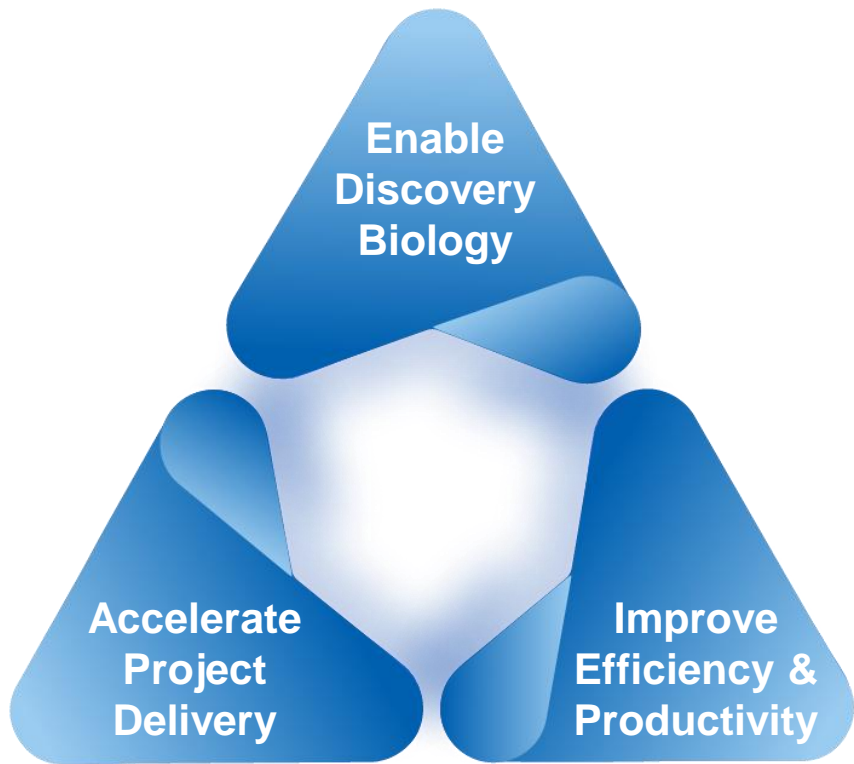
Continuing Expansion of Talent Base

Year End Head Count Trend

>3000



WX Biology: Value to the Customer



Drug Discovery Typically Starts with Biology



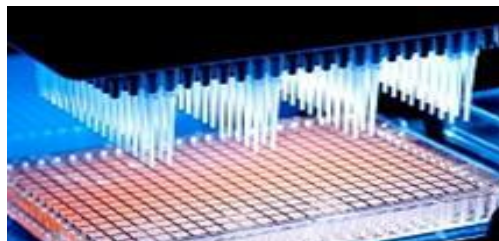
TARGET

Identify & Validate



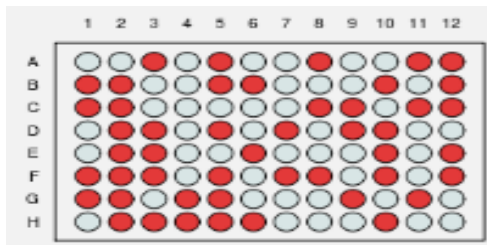
HIT

Find



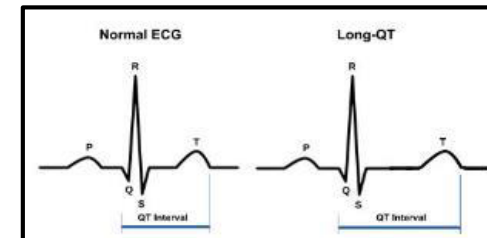
LEAD

Optimize



PCC PRECLINICAL
CANDIDATE

Select



BIOLOGY

CHEMISTRY

Industry Leading Platform for Hit Identification

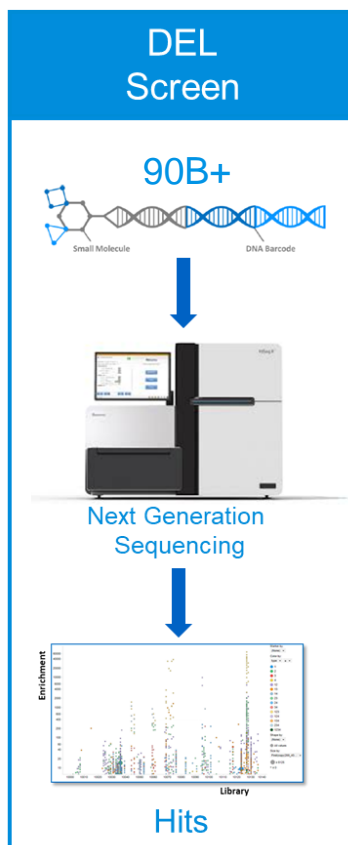
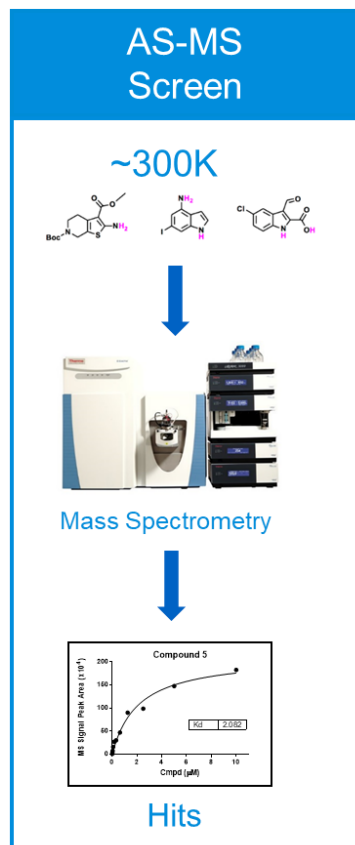
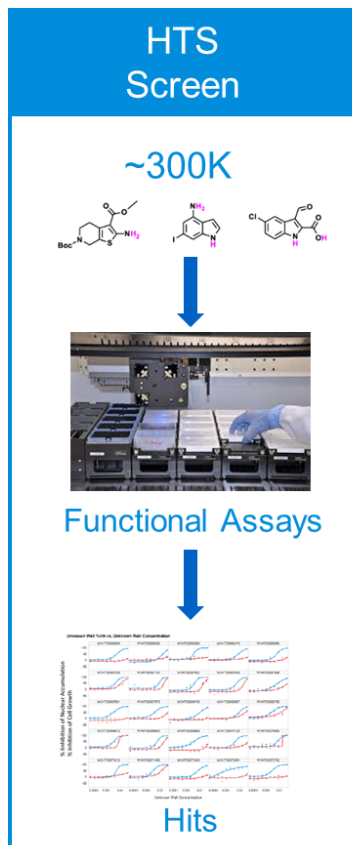
Target

Hit

Lead

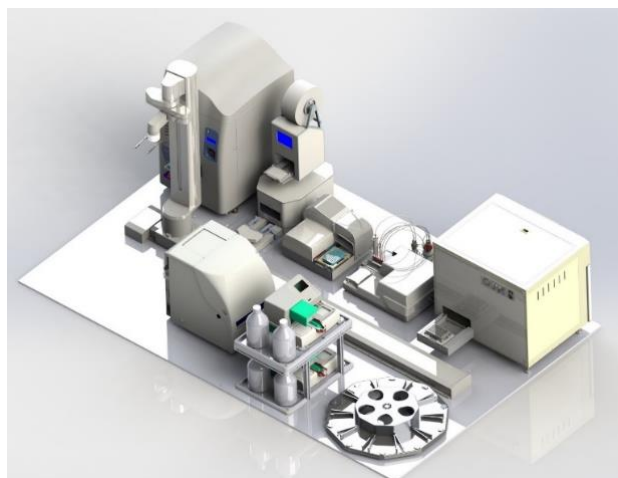
Candidate

IND



- **Hundreds of** successful hit finding projects
- Different target types require different hit finding technologies to find the best hits
- Different methods will uncover different chemotypes

Leader in High Throughput Screening



- **Largest** High Throughput Screening (HTS) center in Asia Pacific
- World class Center of Excellence for Hit Finding with a **fully automated Robotic System**



- **First ever 1536-well** throughput in China CRO industry
- **Unique** WuXi compound Library (no IP restrictions) or customer library
- **Designated Screening Center** for HTS for several global major pharma companies



- **Fully integrated** with medicinal chemistry, in vitro biology and ADME for lead optimization

>300k
lead like collection

>170
campaigns
completed

>20M
data points
delivered in 2021

~ 200M
data points
delivered in total

Leader in DNA Encoded Library (DEL) Technology



A central graphic showing a DNA double helix structure on the left, connected to a molecular structure in the middle, and a protein surface on the right. The protein surface is rendered in blue and green, with a small molecule docked on it. The DNA helix is blue and white.

- **Largest** global customer base
- **Pioneer DEL Kit** business model
- **Unique** WuXi library with drug-like scaffolds
- **World renowned** academic advisors
- 36 patent applications, with 16 granted to date
- 14 published academic papers
- **Strong synergy** with WuXi Chemistry capabilities

>90B
compounds

>300
libraries

6,000+
proprietary
scaffolds

35,000+
unique
building blocks

Comprehensive Platform to Evaluate Drug Candidates

Supporting all Target Classes



GPCRs



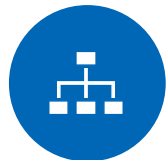
Metabolites



Enzymes



Transporters



Ion Channels



Others

Supporting all Therapeutic Areas



Oncology & Immunology



Cardiovascular & Metabolic



Infectious Diseases



Immunology & inflammation



Neuroscience



Lung, Kidney, GI Diseases



Others

Supporting all Modalities



Small Molecules



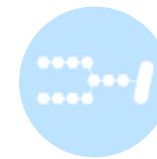
Biologics



Oligonucleotide / Peptide



Targeted Protein Degradation



Others

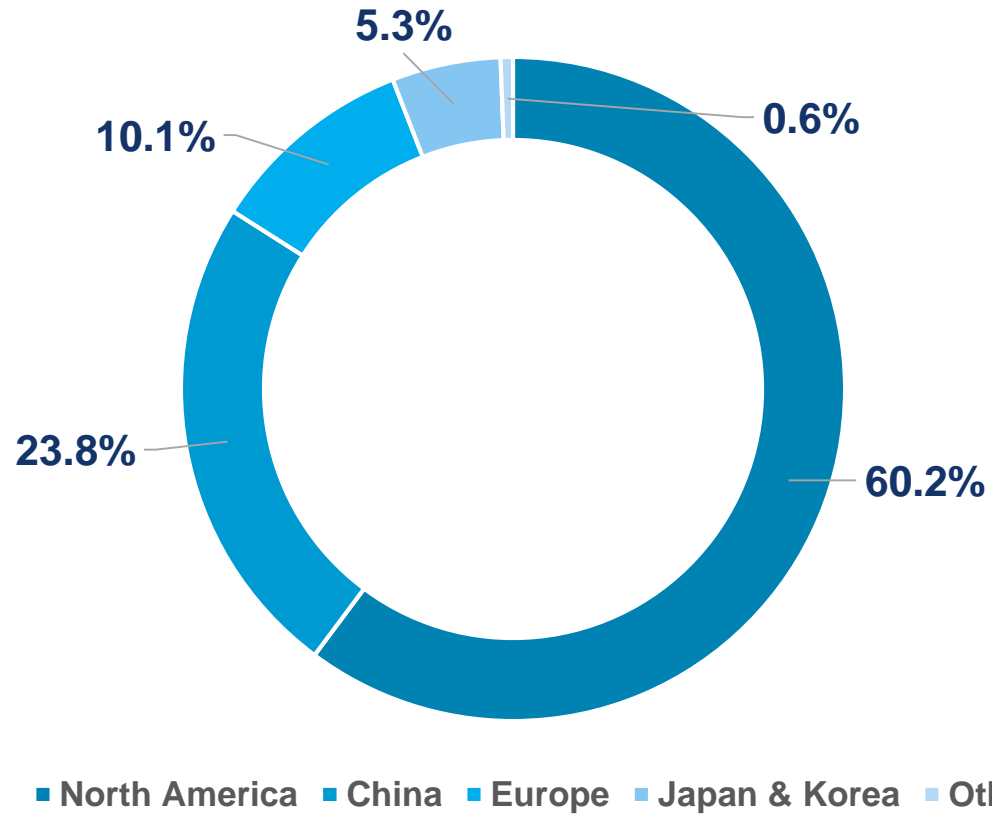
WX Biology: Value to WuXi AppTec Platform



A Global and Rapidly Growing Customer Base



Geographic customer revenue distribution in 2021



of active customer

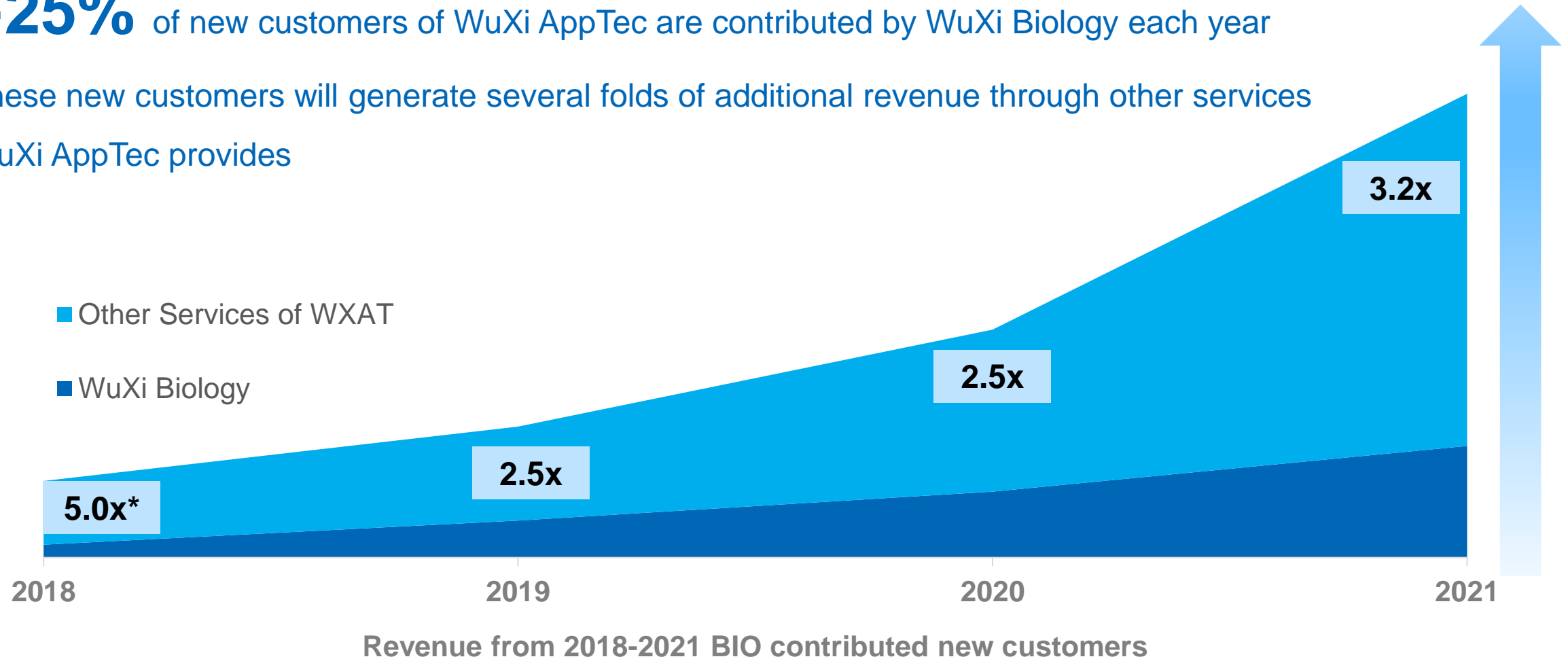


WuXi Biology: Attract New Customers to WuXi Platform

~**25%** of new customers of WuXi AppTec are contributed by WuXi Biology each year

These new customers will generate several folds of additional revenue through other services

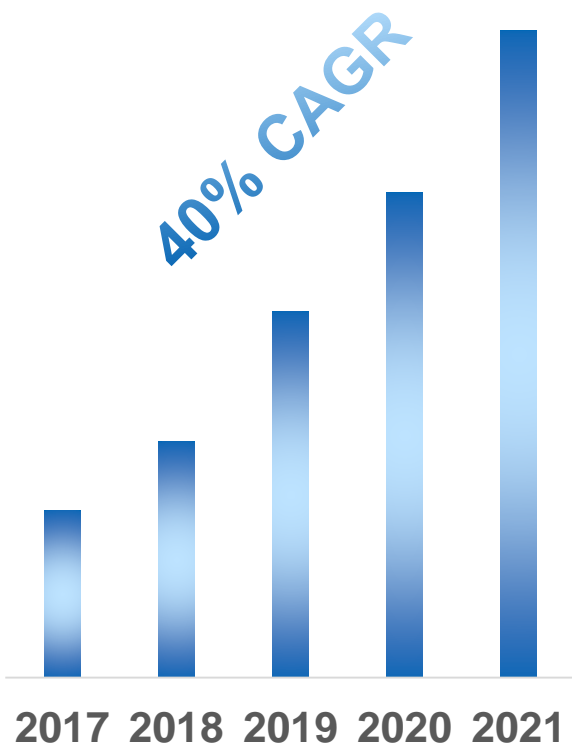
WuXi AppTec provides



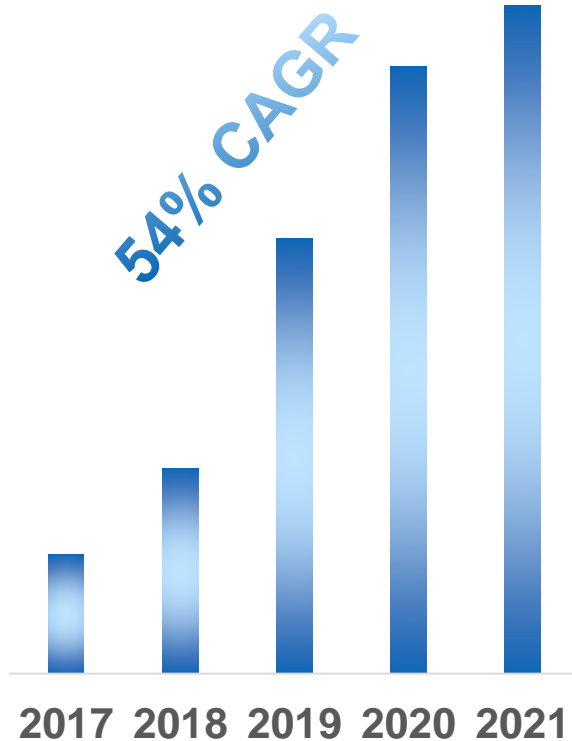
*5.0x here indicated five times as much as revenue of WuXi Biology

Synergies Between WuXi Biology & Chemistry Enhance Customer Engagement

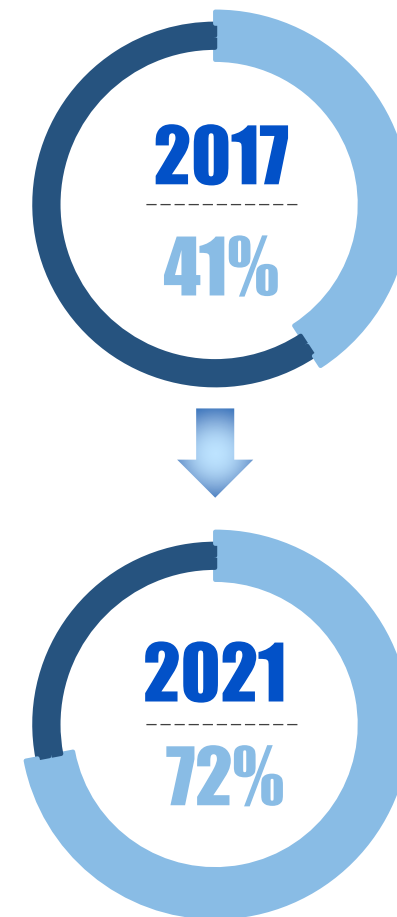
of Customers use both CHEM and BIO platforms



Revenue of customers use both CHEM and BIO platforms

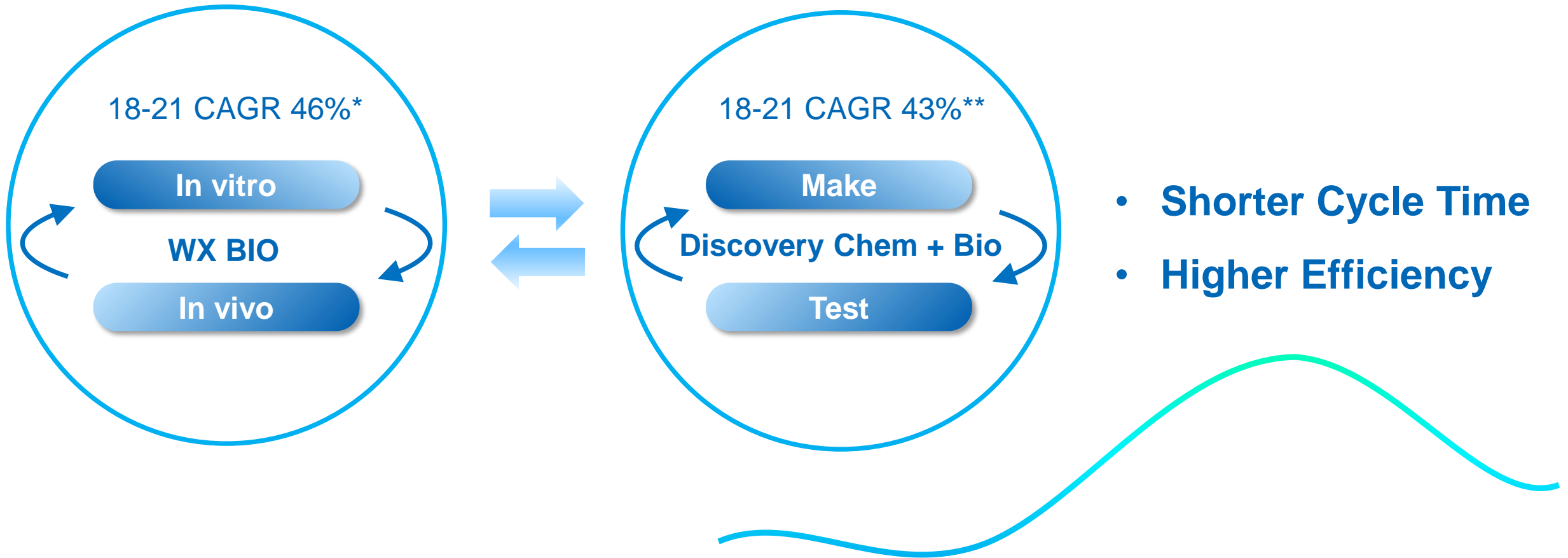


Revenue contribution from CHEM + BIO clients to WuXi Biology



Note: Chemistry platform*: IDSU&CSU

Promote Customer Conversion Within WX Biology & Between Biology and Discovery Chemistry



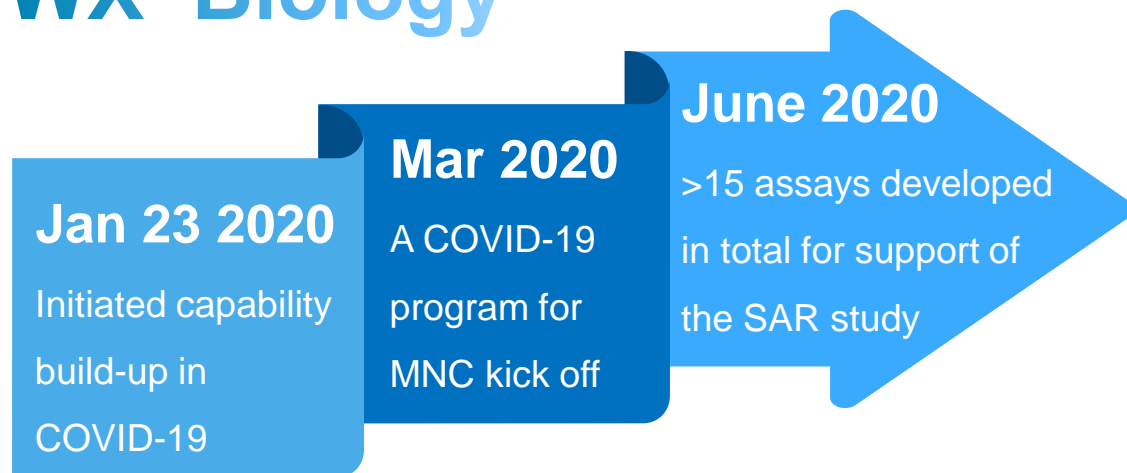
*BIO Revenue of customers use both in vitro and in vivo platforms

*Discovery Chemistry and Biology Services Revenue of customers use both CHEM (IDSU+CSU) and BIO platforms

Enhance Downstream Opportunity

Case study of enabling client – a COVID-19 project for a top MNC client

WX Biology



WX Testing
LTD - DMPK

WX Chemistry
STA

Compound

IND

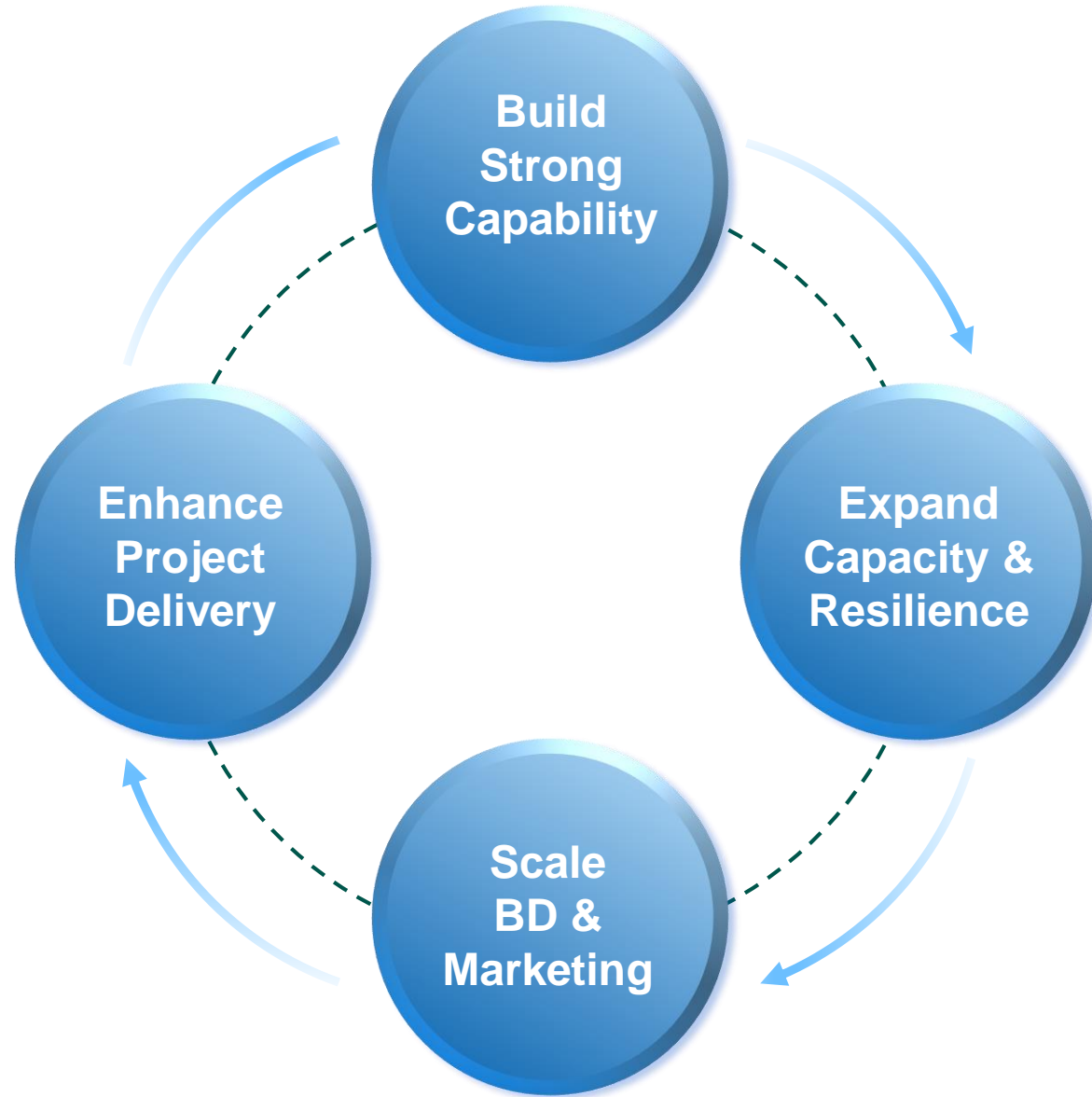
FDA EUA approval



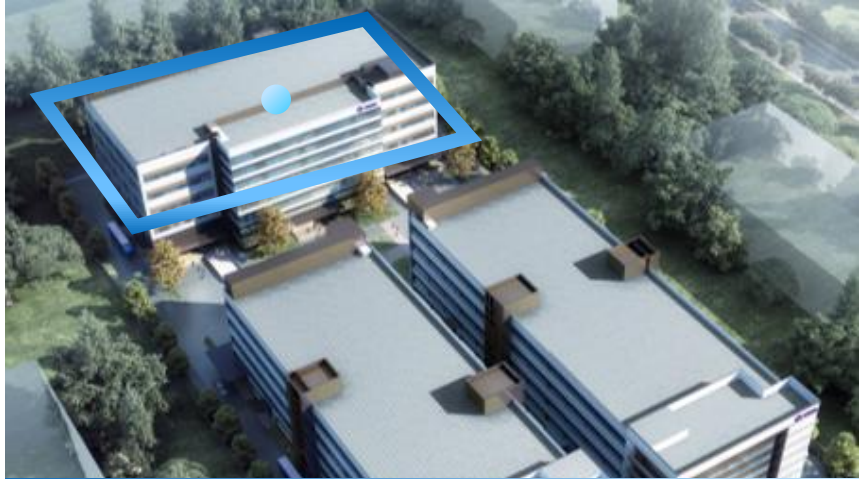
Enable customer to deliver more than one candidate within **11** months

10 months from IND to FDA EUA approval

WX Biology: Drivers for Growth



Building New Capacity to Enable Future Growth



New building in Suzhou

2023-2024: ~30,000 m²
New Biology Center



State of the art new campus in Qidong

2023-2024: ~20,000 m²
Large Animal Pharmacology Center

Operational Resilience through Global Site Network



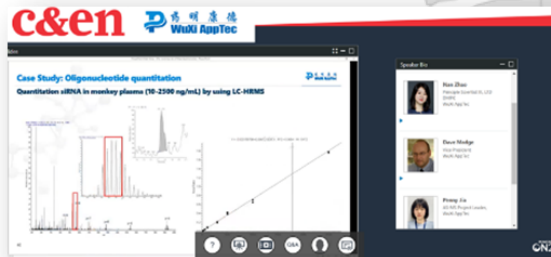
Note: Capacity under construction



Global Business Development, Marketing and Promotion

US and EU

- 11 ARTICLE
- 11 WEBINAR
- 25 CONFERENCE
- 200+ SOCIAL POST
- 7000+ NEW LEADS

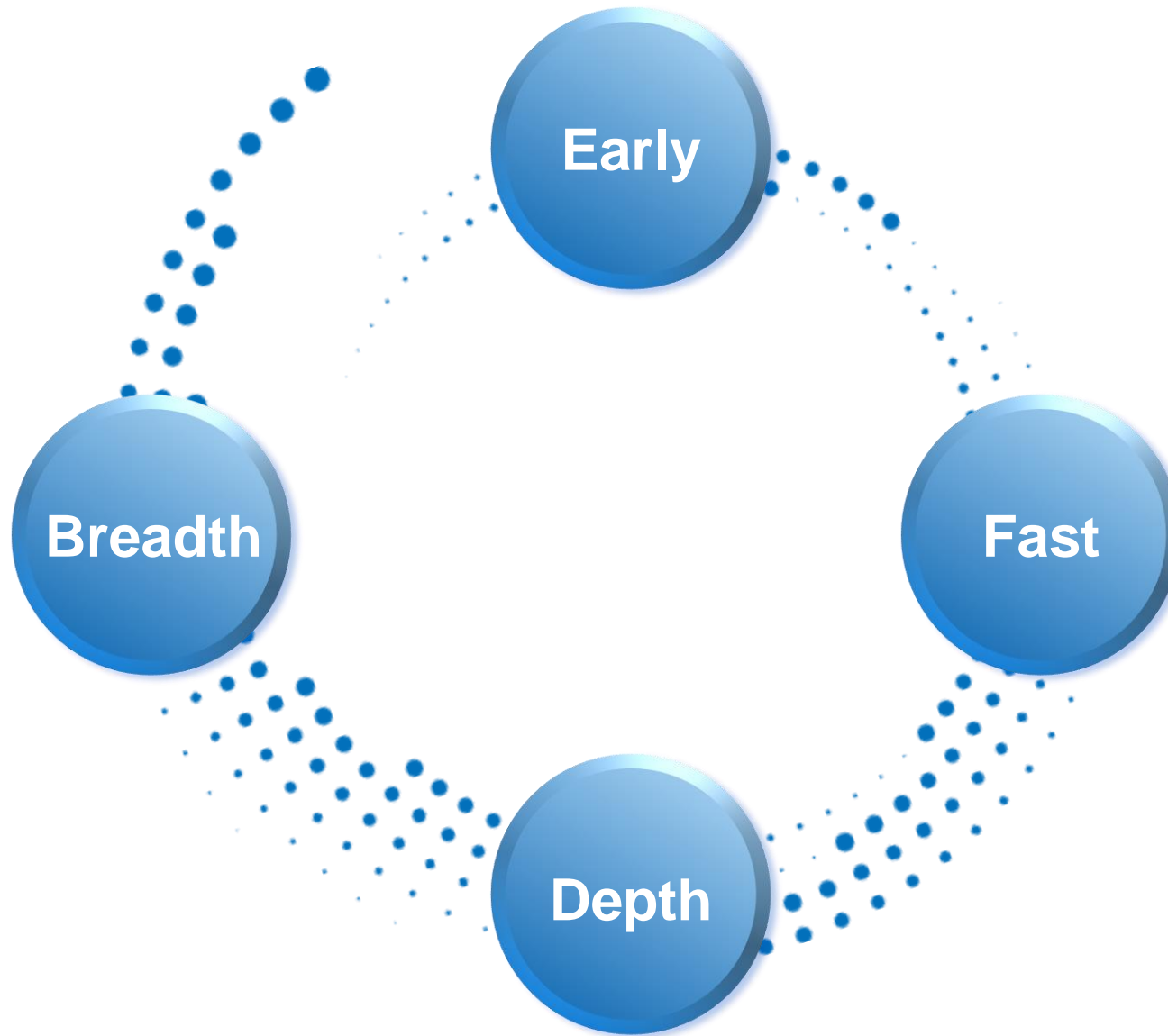


China

- 3 ROAD SHOW
- 6 CONFERENCE
- 23 WEBINAR
- 150+ SOCIAL POST
- 5000+ NEW LEADS



WX Biology: The Flywheel of Capability Building



Early Capability Building in Emerging Technologies

Bispecific antibody

ADC

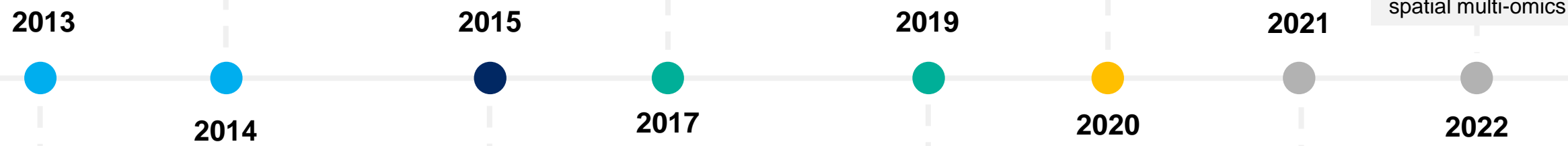
Target Protein Degradation

Stem cell

Oncolytic viruses

OBOC

Single-cell and spatial multi-omics



CRISPR

CRISPR-Cas9

Cancer vaccine

Oligonucleotide

Fusion protein

Tumor Infiltrating Lymphocyte

CHIMERIC ANTIGEN RECEPTOR (CAR)

CAR-T / Cell Therapy

AAV / Gene Therapy

Covalent inhibitor

Enable Early Innovation Through DELopen Collaboration with Academic Community



600+
collaborators
from Academic
Community

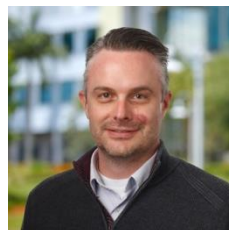
50+
data exchange

**Binder
confirm Rate
>85%**



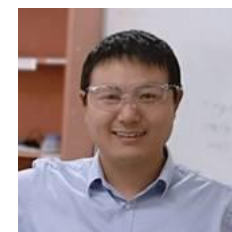
▶ **Ken Westover Ph.D**

Assoc. Prof.
UT Southwestern



▶ **Matthew D. Disney Ph.D**

Chair of Chemistry Dept.
UF Scripps



▶ **Jianrong Xu Ph.D**

Associate Researcher,
Shanghai Univ. of Tradi.
Chin. Medicine



**DELopen
discovery of
RAS inhibitors**

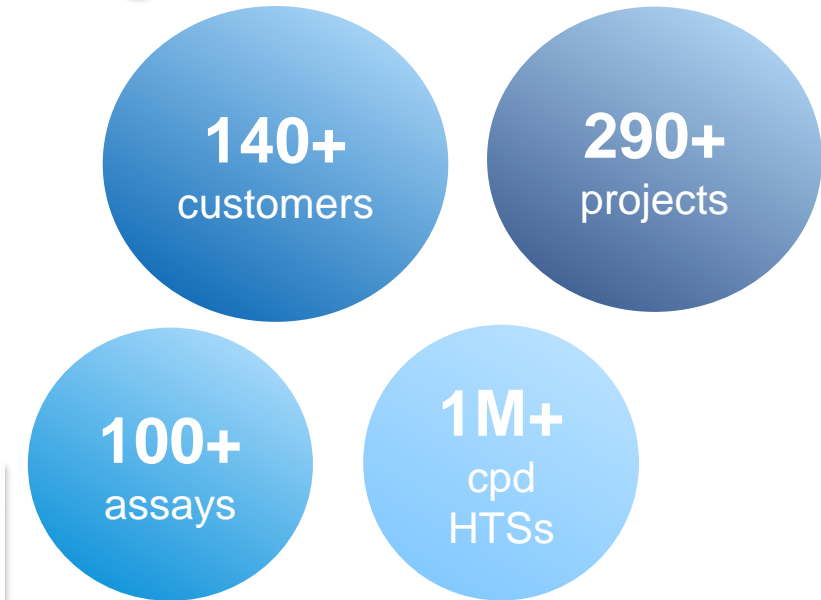
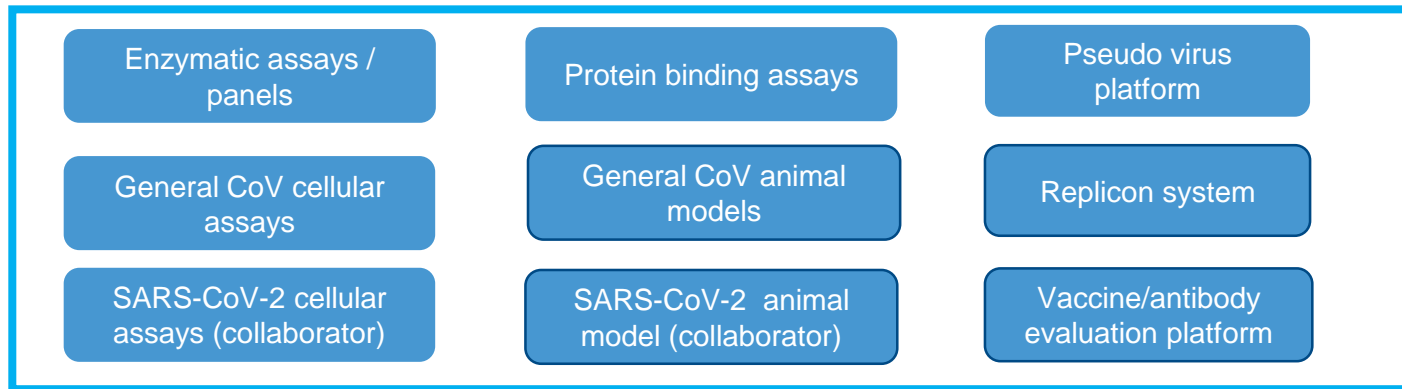


**DNA-encoded Libraries
to enable design of
small molecule RNA
degraders**



**Preliminary DEL
screening for
GPCR targets**

Fast Capability Building: COVID-19 Drug Discovery



• Continuously expanding the CoV platform



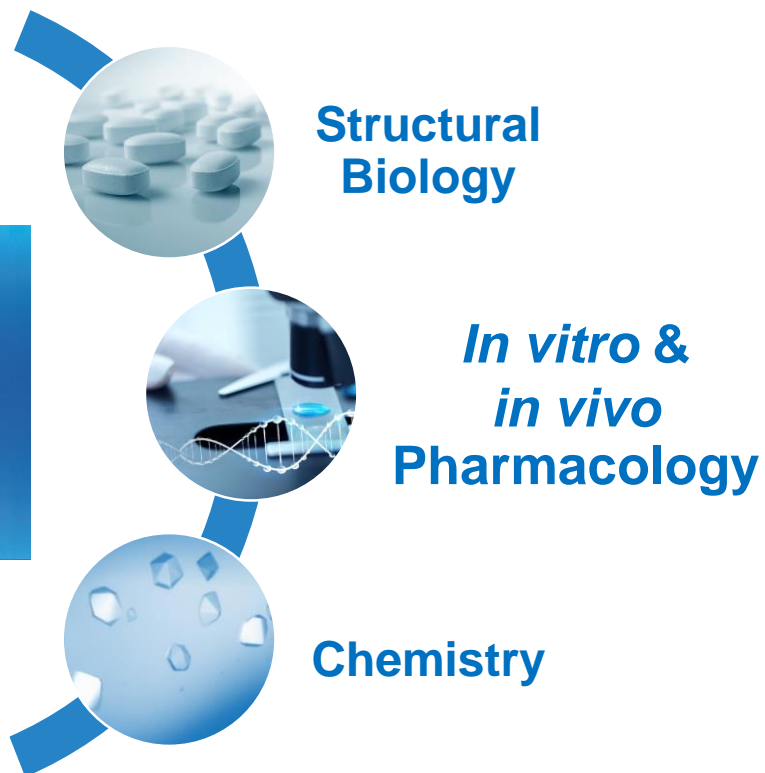
• Providing essential contributions to global customers for their COVID-19 drug discovery, 9 IND projects completed



• Integrated services to clients with WuXi Chemistry in a synergistic manner



Depth in Capability: Targeted Protein Degradation



- One of the **most integrated** biology platforms in Targeted Protein Degradation discovery
- Comprehensive in vitro and in vivo assay/model combination



- **Strong synergy** with the largest Targeted Protein Degradation synthesis/purification discovery team worldwide in WuXi Chemistry



- Offer tailored research strategy support
- Expanded to more novel TPD types (LYTAC, ATTEC, DUBTAC, etc.)

Broad Scope

all discovery steps
in Biology

>5 Year
experience

>60 Clients
accumulated

>250 Projects
delivered

>50 targets
involved

**Tailored
Scientific
Support**

Depth in Capability: ADC



- Comprehensive set of ADC characterization services
Project enabling from *in vitro* analysis, *in vivo* pharmacodynamics to translational biomarker evaluation



- ADC affinity evaluation
- Internalization assays
- Cytotoxicity and Fc-mediated cytotoxicity
- Bystander killing evaluation

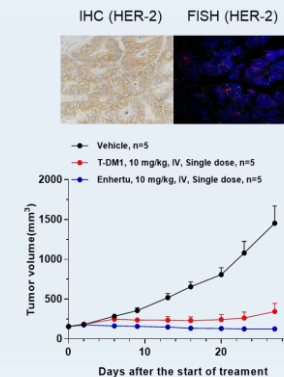
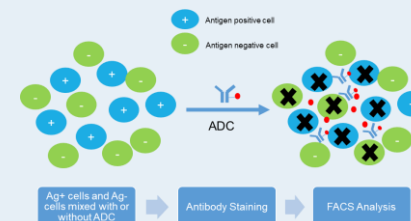
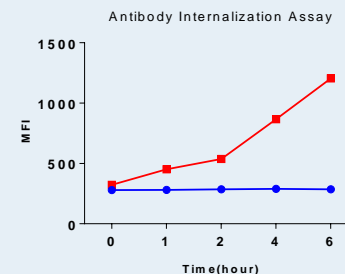
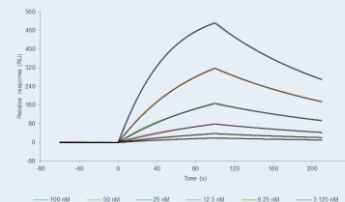


- Efficacy and pharmacology evaluation in CDX / PDX / syngeneic / humanized model
- Biomarker evaluation at both cellular and tissue levels

>8 Year
experience

>200
projects

>35
customers



Breadth in Capability: Antiviral Discovery Platform

Target

Hit

Lead

Candidate

IND



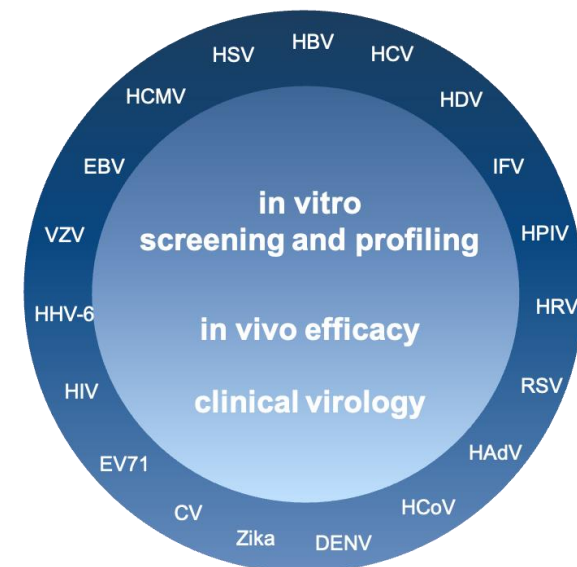
- **A world class** antiviral platform, with **dominant** capabilities and capacities in HBV, SAR-CoV-2, and other viruses
- **Integrated** drug discovery services from establishment of assays to support of clinical trials



- **>20** different viruses
- Capabilities to support the discovery of antiviral drugs, and prophylactic and therapeutic vaccines



- **Extensive** experience in integrated drug discovery collaborations
- **Substantial** contributions to the discovery of HCV drugs
- 200+ cumulative clients worldwide for the discovery chronic hepatitis B drugs



270+
active
customers

500+
projects
per year

190+
IND
studies

8+
drugs on
market

Breadth in Capability: Oncology & Immunology

	Target Discovery	Efficacy	IND Enabling	Customer Tech Platform
Customer A	<input type="radio"/>	<input type="radio"/>		Synthetic Lethality
Customer B		<input type="radio"/>	<input type="radio"/>	Peptide PDC
Customer C		<input type="radio"/>	<input type="radio"/>	RAS Pathway
Customer D		<input type="radio"/>	<input type="radio"/>	Targeted Protein Degradation
Customer E		<input type="radio"/>	<input type="radio"/>	CDK2/4/6 pathway
Customer F		<input type="radio"/>	<input type="radio"/>	AI enabled discovery

2000+ tumor models

1200+ cancer cell lines

130+ IO models

150+ Autoimmune & RGD models

600+ customers



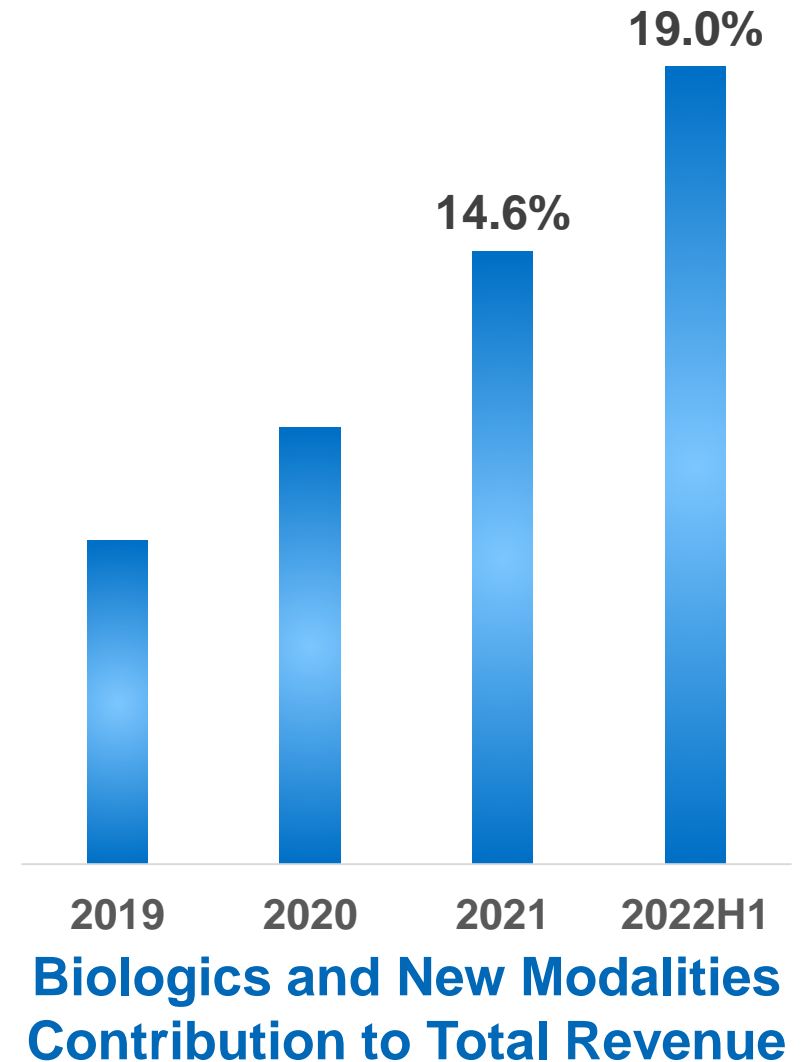
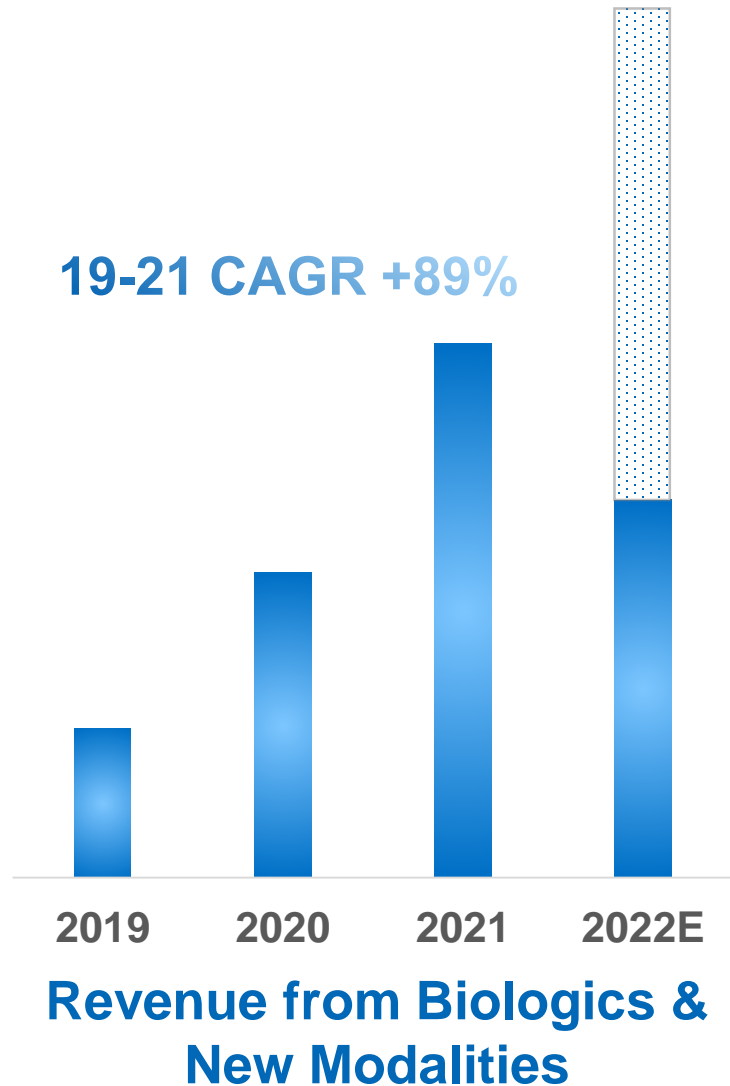
OncoWuXi Online open access database

Breadth in Capability: IO Biomarker Discovery

	Driver Biomarker Validation	Efficacy	Clinical Biomarker Testing	Customer Tech Platform	Biomarker
Customer A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	mAb BsAb mRNA	CD47 CD73 Claudin 18.2
Customer B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	mAb BsAb mRNA	CD47 TIGIT HER2
Customer C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	mAb BsAb	BTK PDL1
Customer D	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Molecular target mAb	B7H4 41BB
Customer E			<input type="checkbox"/>	Oncolytic Virus	TIME

Tumor tissue immune microenvironment information is key to predict immunotherapy

Multi-modality Expansion Supports Drug Discovery



One-Stop RNA Discovery Biology Service



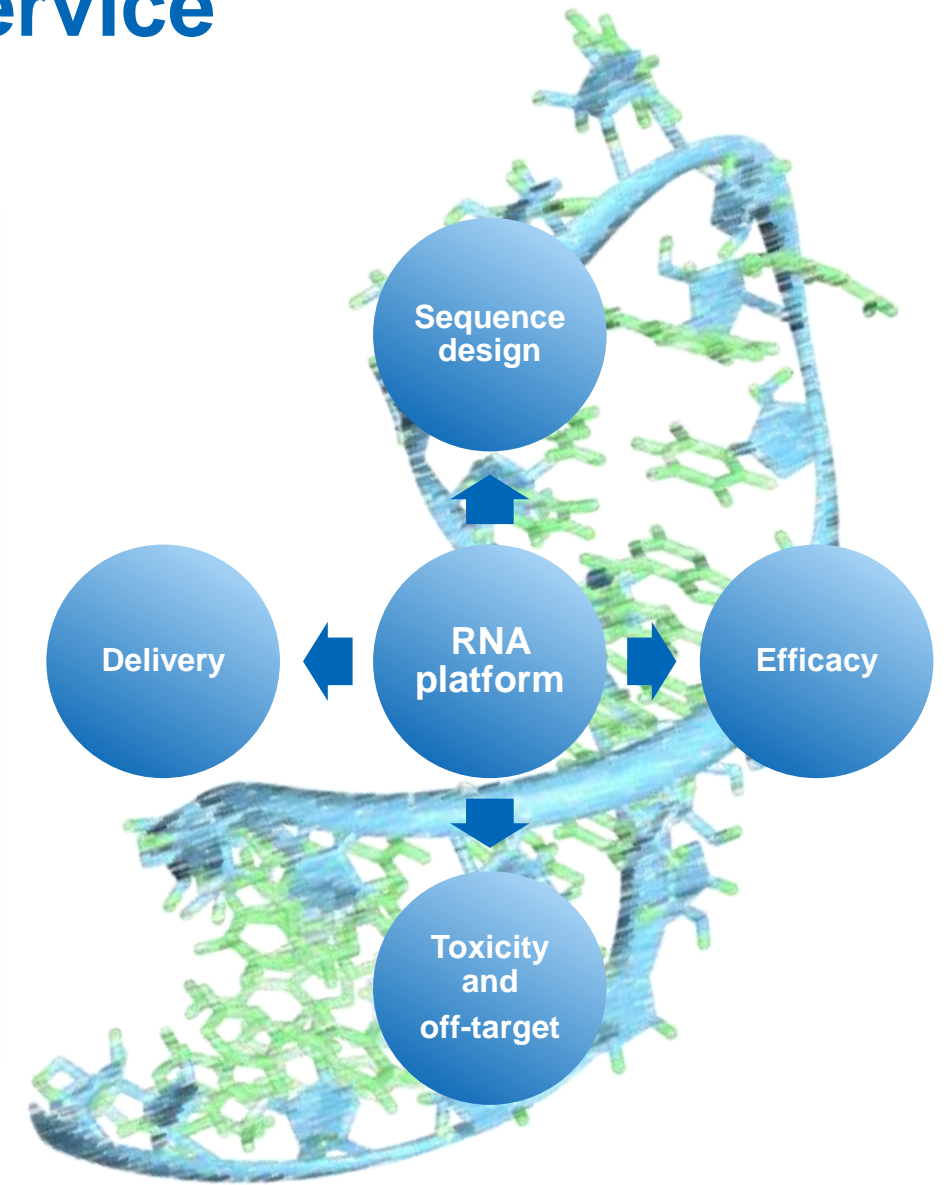
- An **integrated biology platform** for supporting the discovery of oligonucleotide drugs, including design of sequences, assessment of in vitro and in vivo activities, in vitro and in vivo delivery, immunotox and other early toxicity assays, as well as off-target effects



- Established mRNA discovery platform from design of sequence, production of research-scale mRNA to in vitro and in vivo studies for optimization of mRNA drug candidates



- Synergy with WuXi Chemistry and WuXi Testing



>7 Year
experience

>180
projects

>70
customers

>50
different targets

WuXi Biology in Summary



- One of the most **comprehensive** discovery biology enabling platforms



- Expertise in **all major disease areas** and target classes
- Enable discovery of **all modalities**
- **One-stop** Target-to-Hit solutions



- **Integrated** support from discovery to PCC
- Collaboration with the **largest** discovery chemistry team in the industry



- Lab and animal facility management based on **global standards**
- State of the art equipment and systems

2500+ Biologists and scientific managers
¥ 1091M revenue in 2022H1

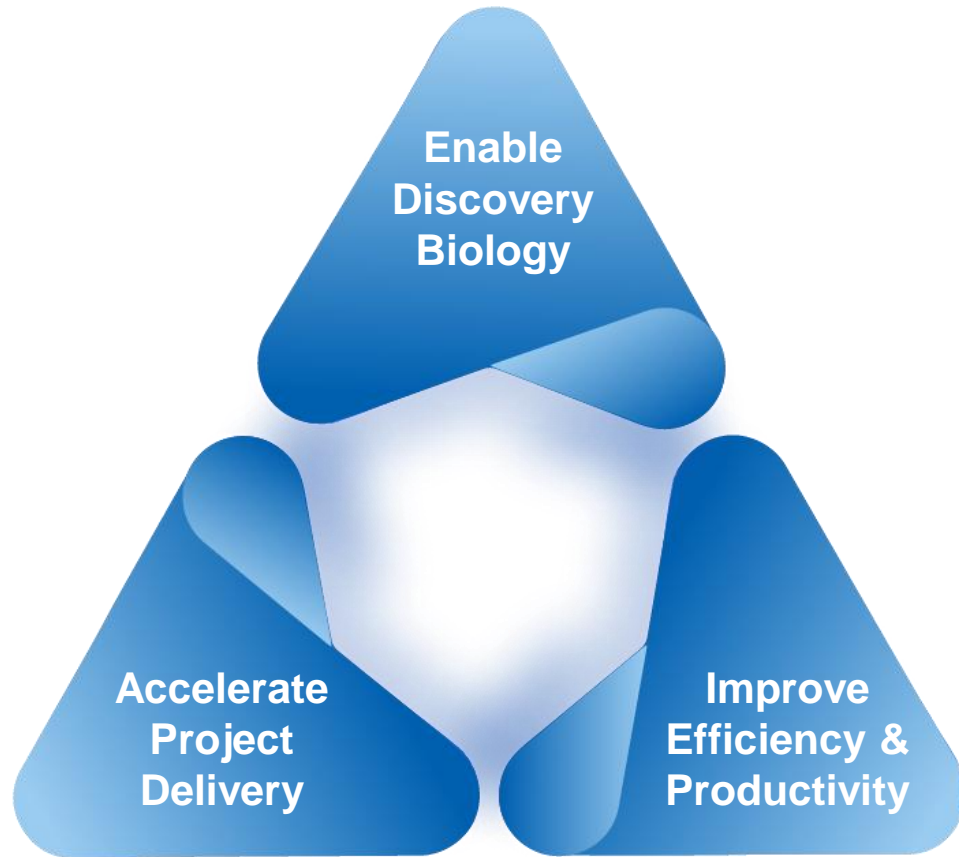
- Track record of enabling the delivery of **hits, leads and PCCs** (Preclinical Candidates)
- Track record of enabling the discovery and **approval of innovative medicines** on the market

>72% revenue in 2021 comes from customers using both WuXi Biology and Chemistry platforms

Entrusted by **18** of global top 20 pharmaceutical companies and **>1200** collaborators

WX Biology: Value Propositions

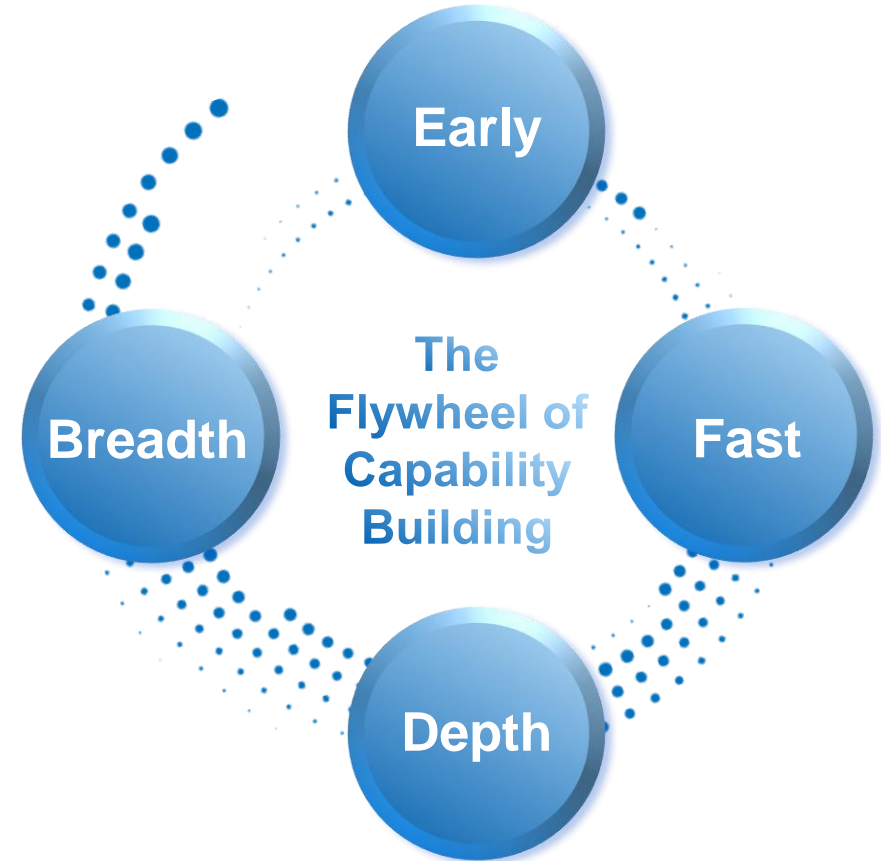
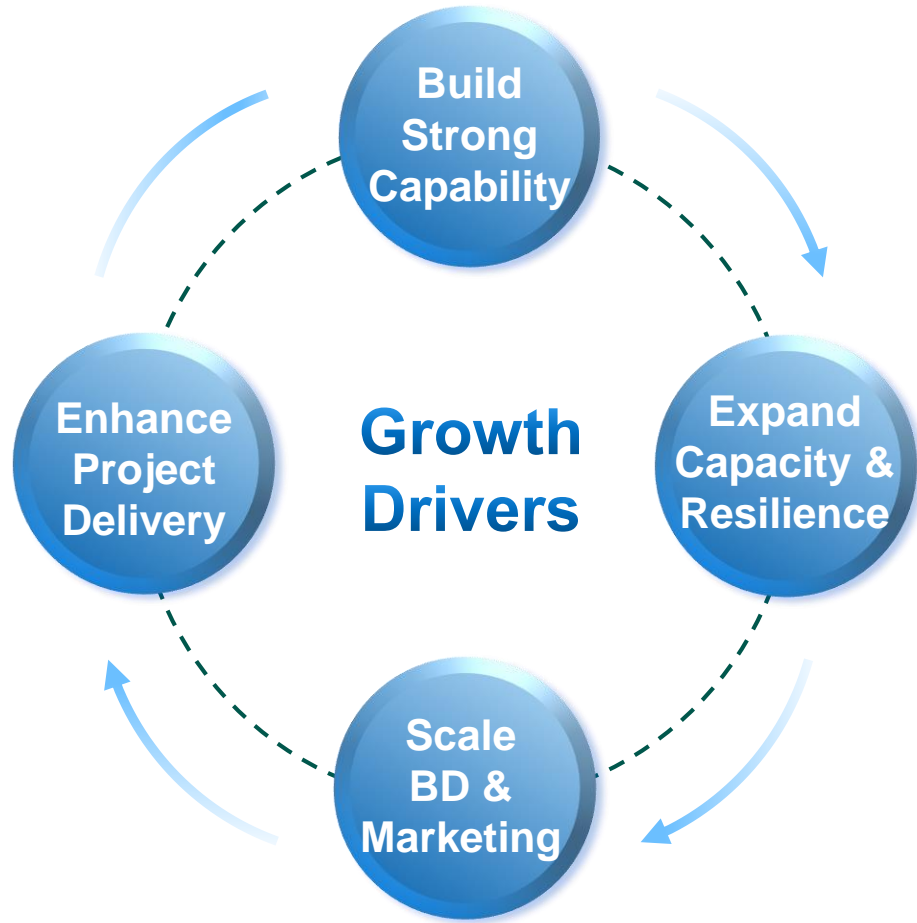
Value to the Customers



Value to WuXi AppTec Platform



Growth Drivers and Capability Building Flywheel



WuXi Biology Key Growth Strategy

