

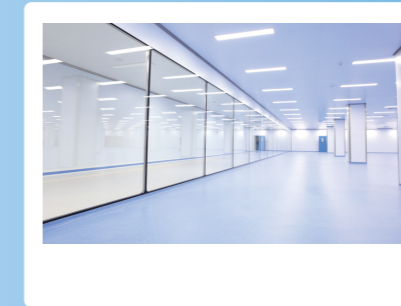
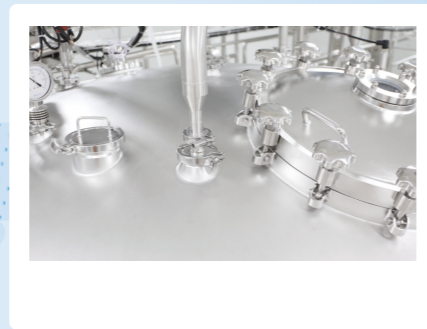
Creating a Better Future for the World

We focus on providing leading and innovative overall solutions to meet current and future needs, and through our continuous technological and service innovation, we provide safer, more efficient, and advanced productivity for the global biotechnology industry, promoting the continuous progress of human life and health, and changing the lives of people around the world.

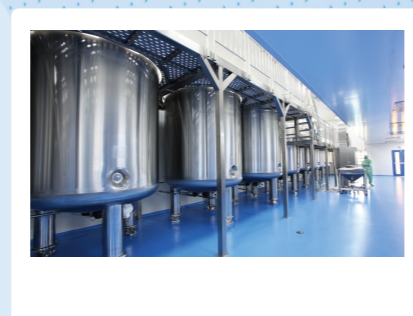


Based in China Serving the World

As of 2025, BIO-YD has established offices in 16 countries and regions in Asia, Europe, America, and Africa, providing EPC services to biotechnology industry enterprises and government agencies worldwide. Its business covers multiple technology fields such as blood products, human vaccines, veterinary vaccines, genetic recombination, monoclonal antibodies, sterile preparations, medical beauty, synthetic biology, fine chemicals, and new energy.



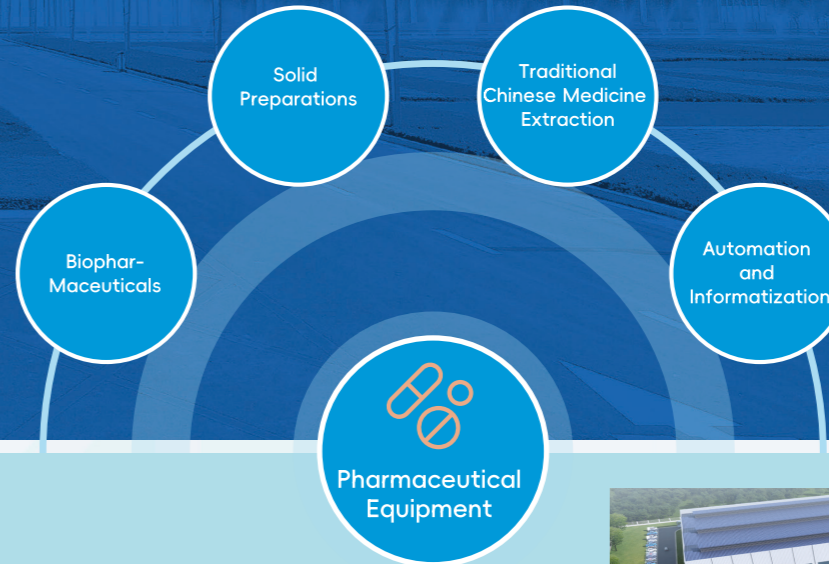
Mexico



SHINVA

Layout four strategic business units to continue leading innovation and development in China's medical industry

SHINVA Medical Group was established in 1943 and is a national key high-tech enterprise in China. With an international perspective, it has laid out four strategic business sectors: medical equipment, pharmaceutical equipment, medical services, and medical commerce.



ABOUT US

BIO-YD

SHINVA Medical
Pharmaceutical
Technology Group



BIO-YD was founded in 1994 and is headquartered in Chengdu, China. We specialize in providing T+EPC integrated solutions for the biotechnology industry, including process technology, pharmaceutical engineering design, core process equipment manufacturing, project installation, implementation, and validation delivery.

80+ years

SHINVA Medical has a history of over 80 years

10 billion

Annual revenue exceeding 10 billion RMB

30+ years

More than 30 years of service experience in the field of biotechnology industry

1 million+

Design and implement over 1 million square meters of clean engineering projects

TOP 500

Top 500 Chinese Manufacturing Enterprises and Chinese Patent Enterprises

10,000

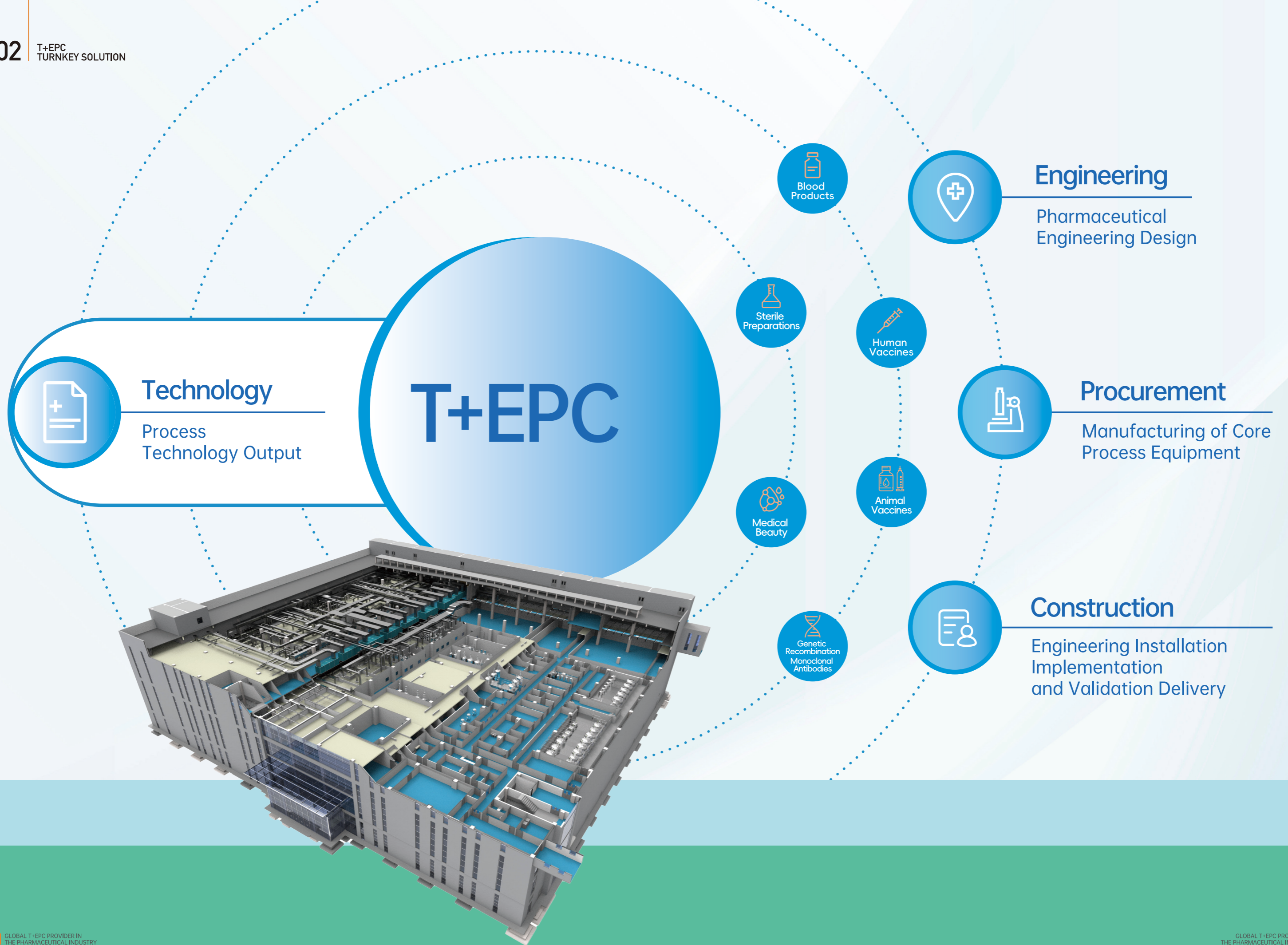
More than 10000 employees

500+

Serving over 500 biotechnology companies

20,000 units/set

A first-class hygiene grade pharmaceutical equipment production base, providing over 20000 units/sets of hygiene grade vessels and modular process systems



Technology

Process
Technology Output

T+EPC



Blood
Products



Sterile
Preparations



Human
Vaccines



Animal
Vaccines



Medical
Beauty



Genetic
Recombination
Monoclonal
Antibodies



Engineering

Pharmaceutical
Engineering Design



Procurement

Manufacturing of Core
Process Equipment



Construction

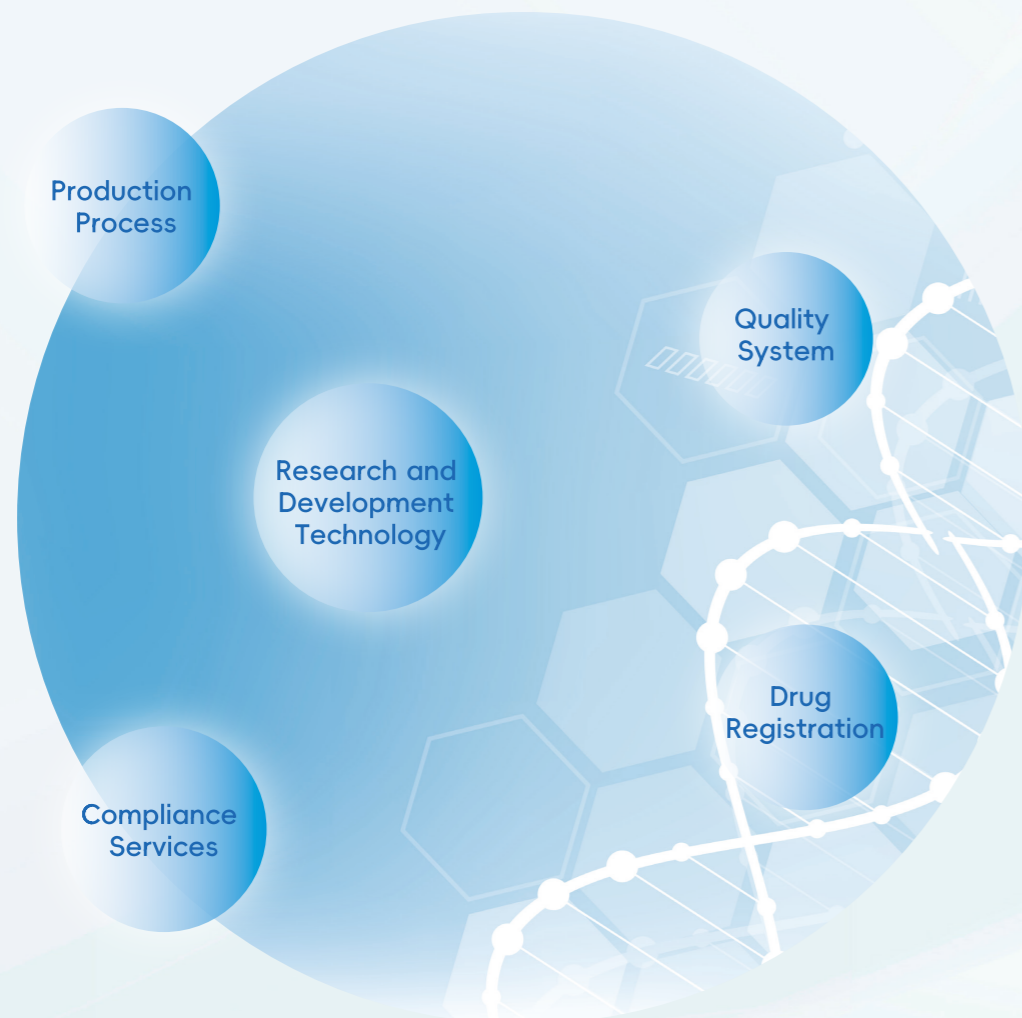
Engineering Installation
Implementation
and Validation Delivery

T echnology

Process Technology Output

Integrate cutting-edge process resources in the biopharmaceutical industry to provide customers with one-on-one technical output

BIO-YD has integrated Chinese biopharmaceutical companies and formed a strategic cooperation alliance, joining forces with a team of first-class technical experts to provide customers with professional process technology guidance and training services in the fields of blood products, human vaccines, animal vaccines, genetic recombination, monoclonal antibodies, sterile preparations, and other pharmaceutical industries, fully exporting advanced production processes and technologies.



Blood Products

Human serum albumin, intravenous immunoglobulin, freeze-dried intravenous immunoglobulin, hepatitis B immunoglobulin, immunoglobulin, rabies immunoglobulin, tetanus immunoglobulin, histamine immunoglobulin, fibrinogen, prothrombin complex, human coagulation factor VIII, human coagulation factor XI.



Human Vaccine

Rabies vaccine for human use, inactivated Japanese encephalitis vaccine for human use, herpes zoster vaccine, pertussis, tetanus, influenza, etCHIB, 23 valent pneumonia, hepatitis BHPV.



Animal Vaccine

Foot and mouth disease vaccine, porcine circovirus vaccine, avian influenza vaccine, Newcastle disease vaccine, animal genetic recombinant subunit vaccine.



Gene Recombination

Monoclonal antibody insulin, degu insulin, aspart insulin, recombinant human insulin, liraglutide, semaglutide, interferon.



Monoclonal Antibody

Bevacizumab, rituximab, adalimumab, trastuzumab, denosumab, ipilimumab, panitumumab, and cabozantinib.



Medical Beauty

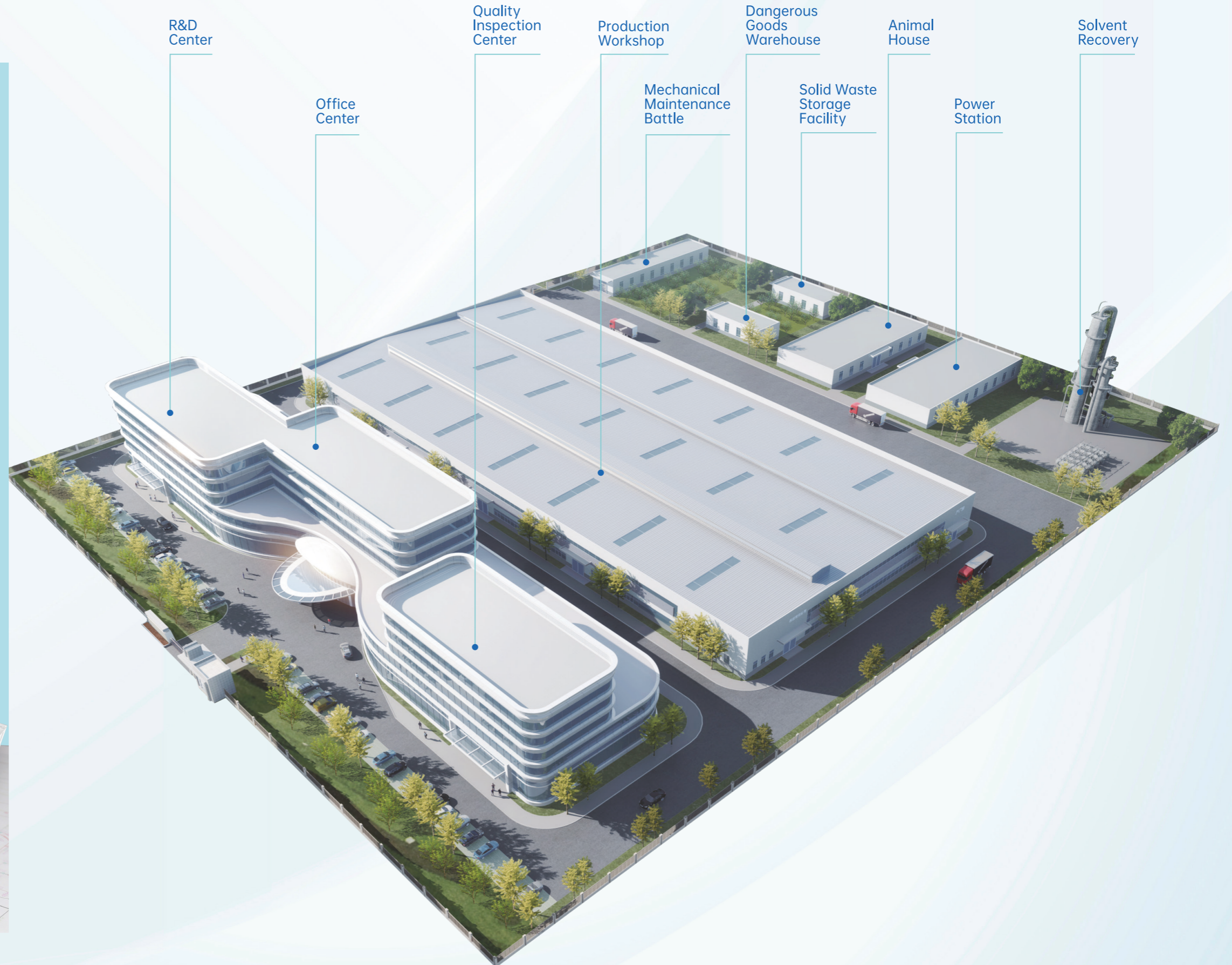
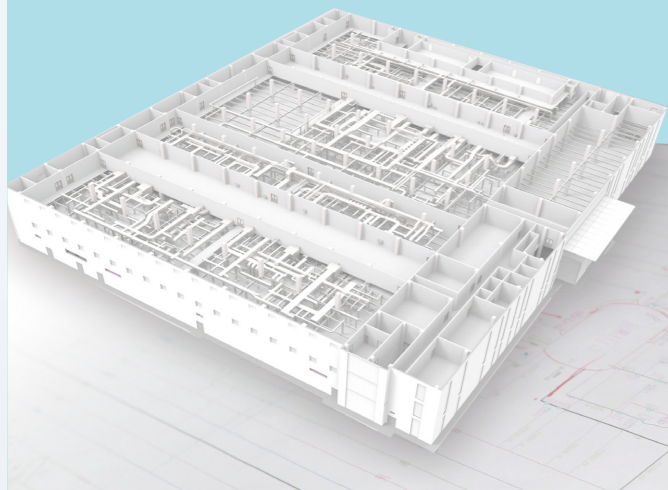
Hyaluronic acid, collagen protein

E ngineering

Pharmaceutical Engineering Design

SHINVA BIO-YD Pharmaceutical Engineering Design Institute customizes forward-looking overall design solutions for customers with different needs

With over 30 years of service experience, BIO-YD has a leading engineering design institute in the industry. Whether it is the design of modular process systems or the construction and renovation of biopharmaceutical factory production lines, from production flow layout, warehousing and logistics, energy conservation and emission reduction to intelligent production information, SHINVA BIO-YD Pharmaceutical Engineering Design Institute provides integrated professional design solutions for biotechnology industry customers.



Service Content of Conceptual Design for Pharmaceutical Engineering

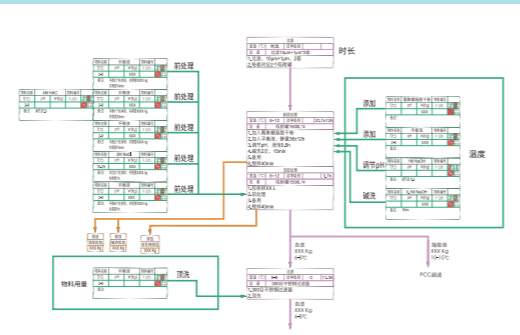
Project Consultation

- Project initiation
- Project site selection
- Feasibility study
- Investment estimation



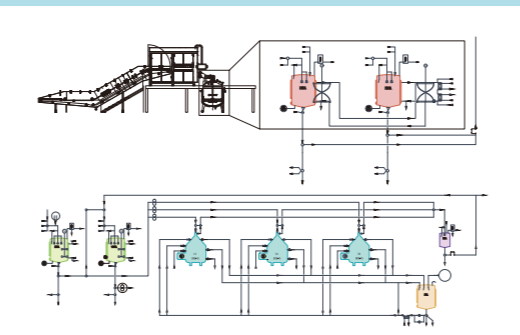
Process BFD

- Operation process
- Key operating parameters
- Core control point
- Material balance
- Energy balance



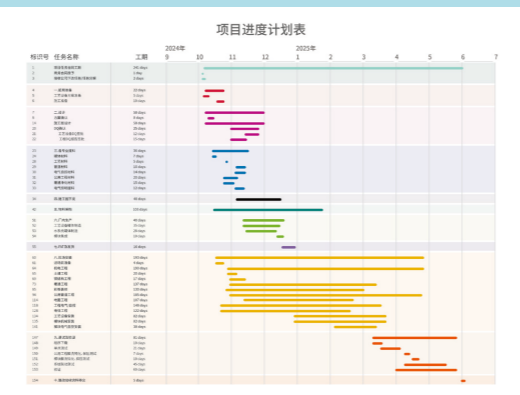
Process PFD

- Main equipment selection
- Tank system configuration
- Utility system medium
- Process flow



Process Material Balance Calculation

- Main material consumption List
- Process yield
- Process scheduling
- Whole process scheduling
- Scheduling accuracy of 30 minutes
- Scheduling duration 1-12 months

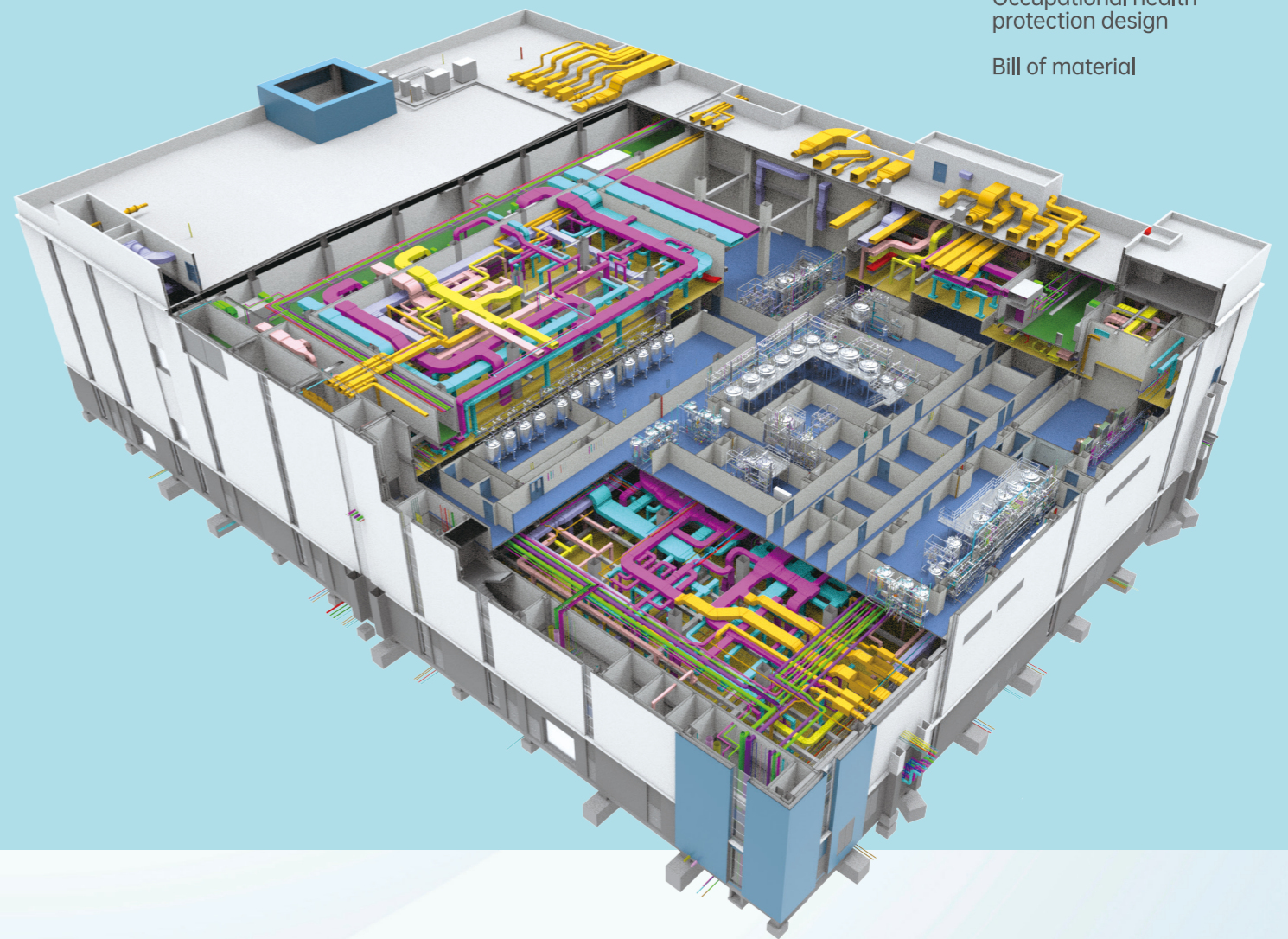


Flat Layout

- Core process
- Biosafety
- Fire safety
- cGMP PIC/S

Construction Drawing&BIM Design

- Cloud-based collaborative design across all disciplines
- BIM/LOD400
- Design of safety facilities
- Occupational health protection design
- Bill of material



P rocurement

Manufacturing of Core Process Equipment

Customize biopharmaceutical equipment for customers across the entire industry to meet the needs of building different production lines

BIO-YD TECHNOLOGY

SHINVA TECHNOLOGY

CHINESE TECHNOLOGY

Sanitary Vessels and Agitating Systems



- Sanitary grade vessel
- Magnetic agitator
- Mechanical agitator



Bioreactor System



- Glass fermentation bioreactor system
- Stainless steel fermentation bioreactor system
- Cell factory feeding module



Liquid Preparation and Process Module



- Stainless steel liquid storage system
- Emulsification system
- Inactivation system
- CIP system
- Vacuum feeding systems



Single-use System



- Single-use biological bag
- Single-use bioreactor system
- Single-use preparation storage system



Purification System



- Chromatography system
- Ultrafiltration system
- Nanofiltration system

Standard Equipment

- Pulse vacuum sterilization cabinet
- Transfer window
- VHP transmission window
- Dry heat sterilization cabinet
- Biosafety cabinet
- Clean bench
- Isolator

Sub-packaging

- Washing and drying integrated line
- Packaging machine
- Capping machine
- Labeling Machine
- Cartoning machine
- Case packer

Separation System

- Disc centrifuge
- Tubular centrifuge
- Filter press
- Deep/Clarifying filtration system
- Tangential flow filtration system
- Homogeneous system..

Other

- QC laboratory
- Blood testing laboratory
- Experimental animal room
- Storage facilities

Construction

Engineering Services

Present the design blueprint on site and assist clients in meeting various GMP regulations and validation requirements

Engineering Installation

Provide comprehensive installation services for the biotechnology industry, including clean room and HVAC, clean pipeline, utility, automatic control system, and validation services. Strictly follow local regulations and relevant requirements for acceptance to ensure that the project meets cGMP requirements.



Clean room and HVAC



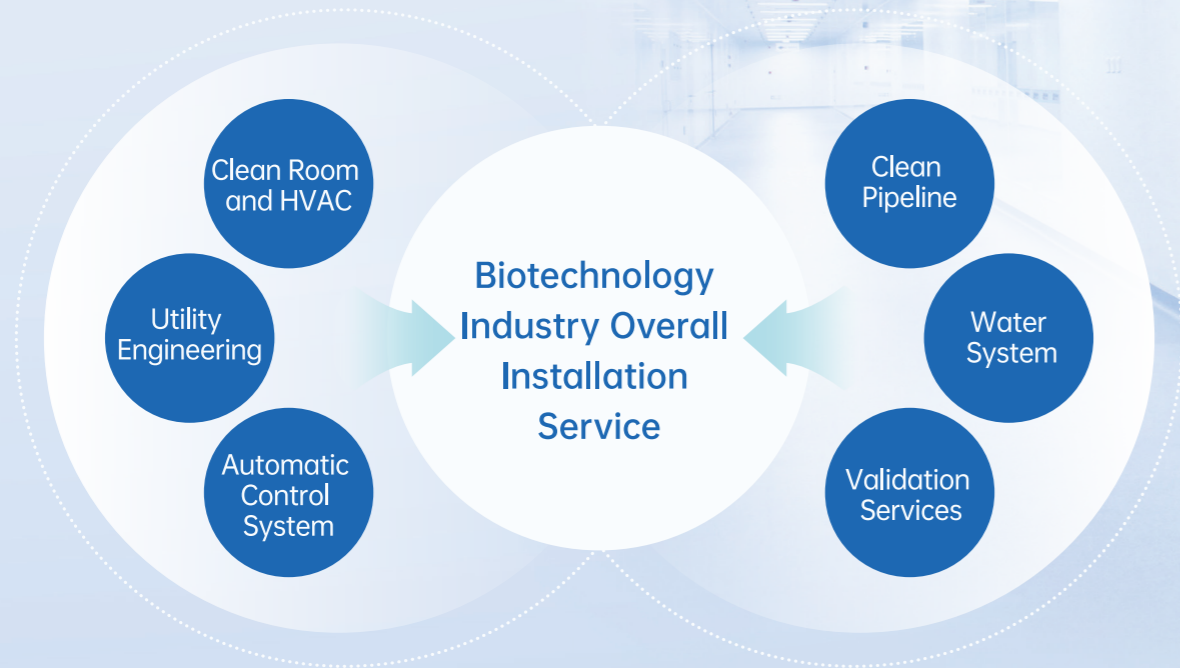
Water system



Utility engineering



Technical mezzanine



Automation Control

Automation Control

As a pioneer in intelligent manufacturing and smart factory solutions in the biotechnology industry, BIO-YD is committed to customizing stable, user-friendly, and compliant automation and information technology professional solutions for customers. Our services cover a comprehensive range of automation and information services from design, development, supply, construction to FAT and SAT testing, computer system GMP validation, ensuring that the system meets industry standards and specifications in regions such as the United States, the European Union, and China. We help our customers stand out in the fierce market competition, achieve the improvement of intelligent manufacturing and the construction of smart factories.

Service Scope

Advisory service

Factory informatization

Factory automation

Computerized validation

Service Scope

Advisory Service

Automation of the new workshop
 Budget for Evaluation of Informationization and Digital Concept Design
 Automation of the old workshop
 Informationization and digital upgrade evaluation and budget

Factory Informatization

Supervisory Control And Data Acquisition (SCADA)
 Manufacturing Execution System (MES)
 Laboratory Information Management System (LIMS)
 Warehouse Management System (WMS)
 Network Management System (NMS)

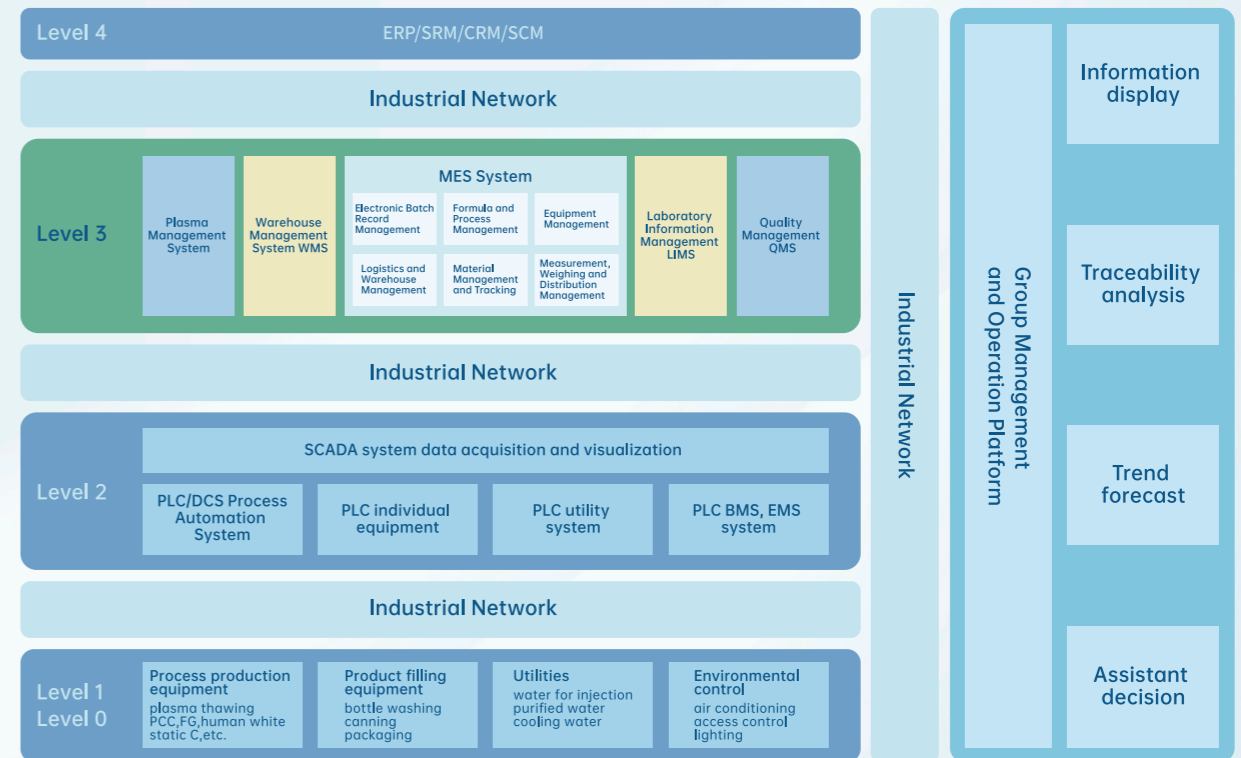
Factory Automation

Process Automation System (PAS)
 Building Management System (BMS)
 Environmental Monitoring System (EMS)
 Energy Management System
 Utility system
 Intelligent Light System
 Intelligent Personnel Management System

Computerized Validation

validation consulting and services that meet NMPA/FDA/EU standards are based on ISPE, GAMP5, V-Model validation document templates, providing professional validation plans, preliminary risk assessments (GxP), risk assessment RAs, requirement traceability matrices, source code audits, module testing, design/installation/operation/performance confirmation, factory/on-site validation testing, validation summary reports, and other services

Digital Factory Overall Architecture



V alidation

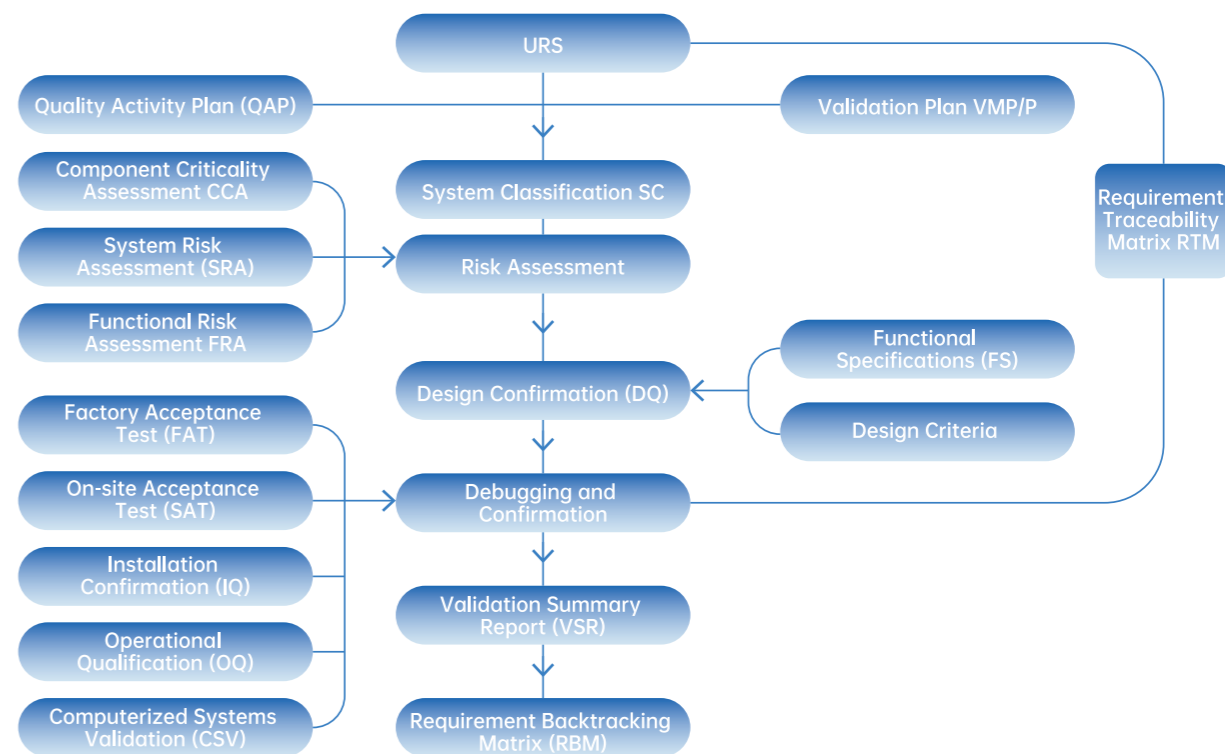
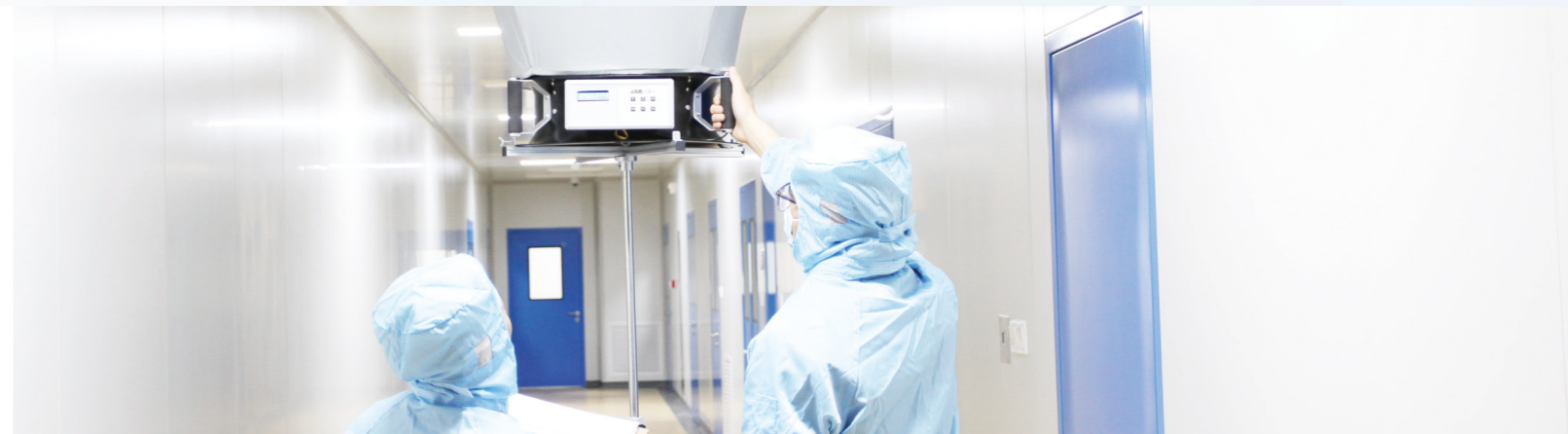
Validation

According to customer URS, relevant GMP regulations and validation requirements at home and abroad. Through risk analysis, develop a comprehensive validation plan, write relevant evaluation documents, and validation schemes. Implement specialized validation according to the validation plan. Form documented evidence to demonstrate that the system/equipment meets the requirements.

-  Professional validation team
-  A comprehensive validation system
-  Standardized validation documents
-  Strict validation implementation

Validation Process Based on Science and Risk

- ▶ **Process Vessel System**
- ▶ **Factory Engineering (clean room/utility facilities) System**
 - Preliminary validation technical exchange
 - Preparation of relevant evaluation documents
 - Validation (equipment/computerization) plan writing and implementation
 - Report organization and handover
- ▶ **Full System Validation Service**
 - Validation consulting, execution, and training
 - Confirmation of process equipment and laboratory instruments
 - Process validation, cleaning validation, sterility related validation
 - Other confirmations/validations
- ▶ **Comprehensive Certification Consultation**
 - The complete set of GMP documents for pharmaceutical factories, establishment, improvement, and perfection of the quality system
 - FDA, EU, WHO, NMPA, and Certification Consulting
 - Integration of regulatory guidelines with actual job operations
 - Factory design review



A Trusted Partner in the Global Biopharmaceutical Industry

For over 30 years, BIO-YD has expanded its business to four continents worldwide, providing professional and reliable solutions to hundreds of customers. It has also obtained multiple exclusive technology patents and industry certifications from the European Union, the United States, and WHO. Nowadays, we continue to be at the forefront of research and innovation, becoming a trusted partner in the global biotechnology industry.

Certification



Business Partner
