







INNOSMART® SFS & FFS

High-throughput Workstation and Integrated Solutions

Email: info@velsson.com

Tel.: 917–653–6157 / 706–726–0576 Add.: 245 Main St, Cambridge, MA 02142

Web: www.velsson.com

INNOSMART® Smart Fluid Station (SFS)

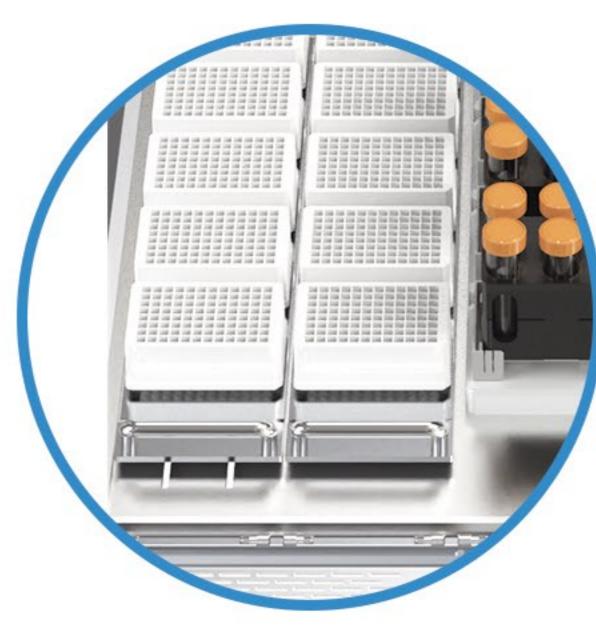
INNOSMART® SFS

INNOSMART® SFS is a cutting-edge modularized fluid solution designed to redefine precision and efficiency, offering unparalleled accuracy, versatility and customization.



Conveyor Module

- Easily integrates with the SFS module and a diverse array of devices and accessories
- · Streamlined, automatic cleanup of consumables for enhanced efficiency
- Ensures a clean environment, guaranteeing superior and reliable results



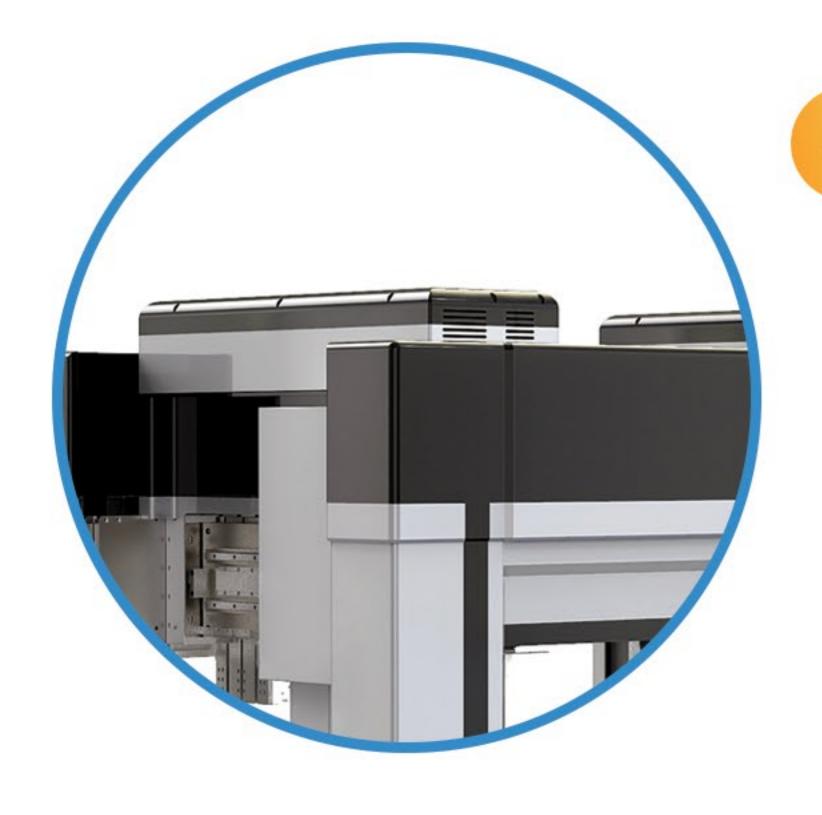
Consumables Module

Intuitive and convenient system for easy loading & unloading of consumables



Pumping Assembly

Precise and smooth automatic pumping and liquid control system



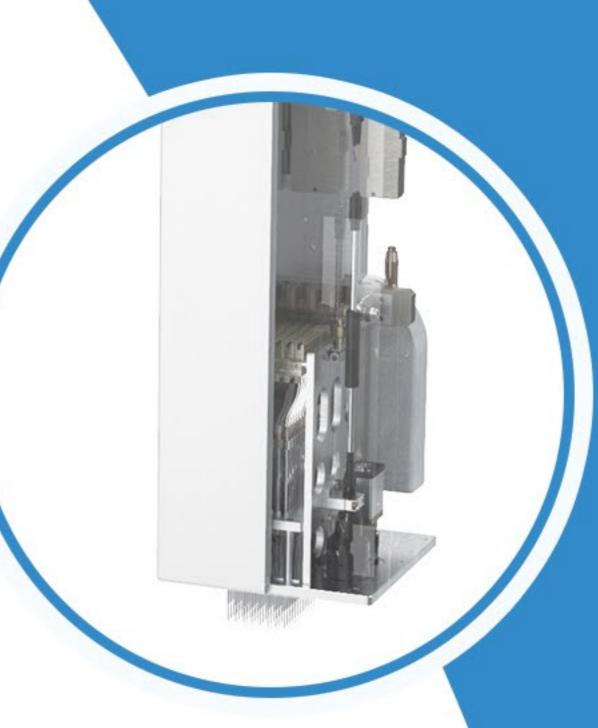
Pipetting Motion Module

Unparalleled high-velocity robotic gripper and pipetting modules (96- Channel & 8 -Channel options)



8-channel Pipetting Module

- Independent spacing control between channels
- Automatic liquid detection and tracking



96-channel Pipetting Module

- Automatic liquid detection and tracking
- High precision in dispensing with dynamic range of volumes between 1 – 1,000 µL



Shaker

Orbital shaking module equipped with a versatile 0-1,500 rpm range of shaking capabilities and precise temperature control spanning from 0℃ - 95℃



Robotic Gripper

High speed versatile robotic gripper with unequaled precision and movement



9 Temperature Module

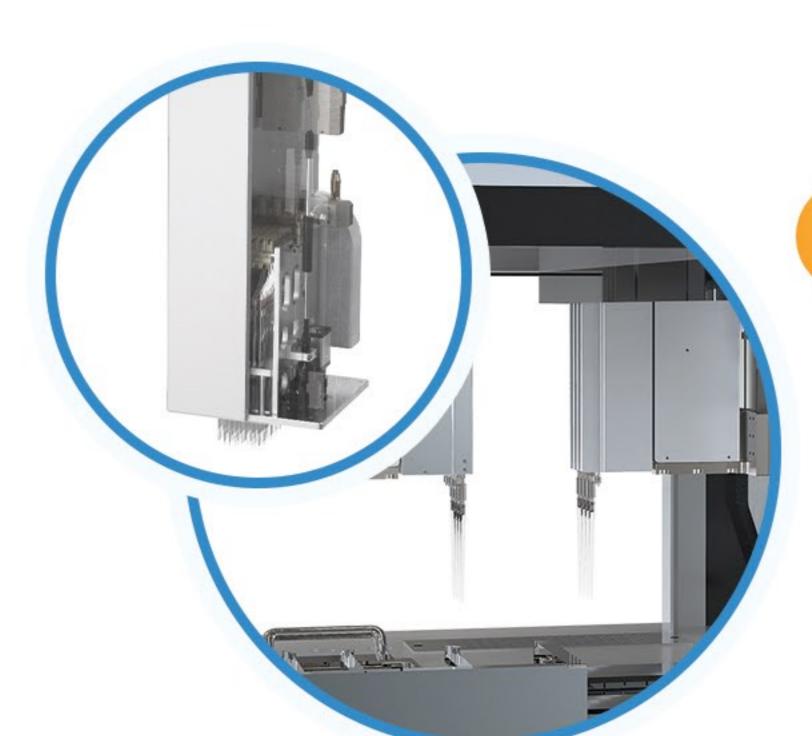
A flexible and space-efficient module offering precise temperature control across a broad range from 0°C - 95°C



INNOSMART® Flexible Multi-Functional System (FFS)

INNOSMART® FFS

INNOSMART® FFS is an innovative, modularized system that seamlessly integrates sample preparation automation with advanced analytical testing and analysis. Boasting flexibility, versatility, and full customization, it offers a comprehensive workflow solutions for many different scientific applications. FFS provides a comprehensive array of method and protocol libraries encompassing nucleic acid synthesis, genomics analytics, transfection, cell culture, purification, and numerous other applications.



8-channel and 96-channel Pipetting Modules

- Independent 8-channel spacing control for greater volume accuracy
- Advanced automatic liquid detection and tracking functions for superior performance



Decapper Array

Compatible with:

- · 2-50mL centrifuge tubes
- 0.5–5mL cryotubes
- 2-50 R vials
- 1–2mL cryotubes
- Many more



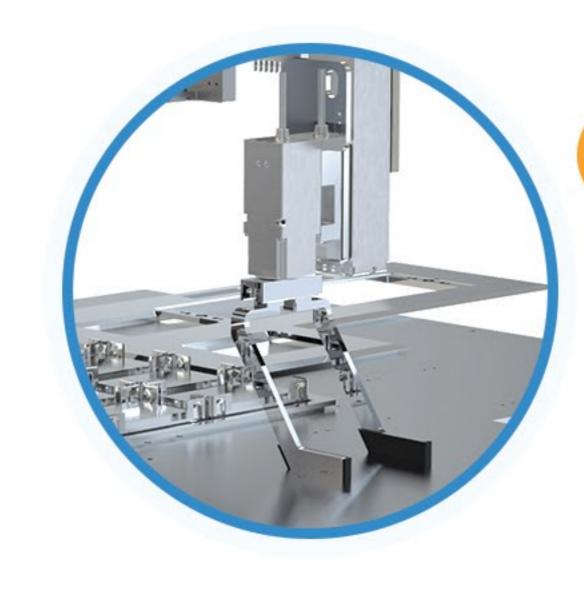
Agile Robot

For highly efficient consumable transfer and operation



Conveyor Module

- Easily integrates with the FFS module and a diverse array of devices and accessories
- Streamlined, automatic cleanup of consumables for enhanced efficiency
- Ensures a sterile environment, guaranteeing superior and reliable results



Robotic Gripper

Agile and precise consumable transfer



Shaker

0-1,500 rpm & 0-95°C temperature control



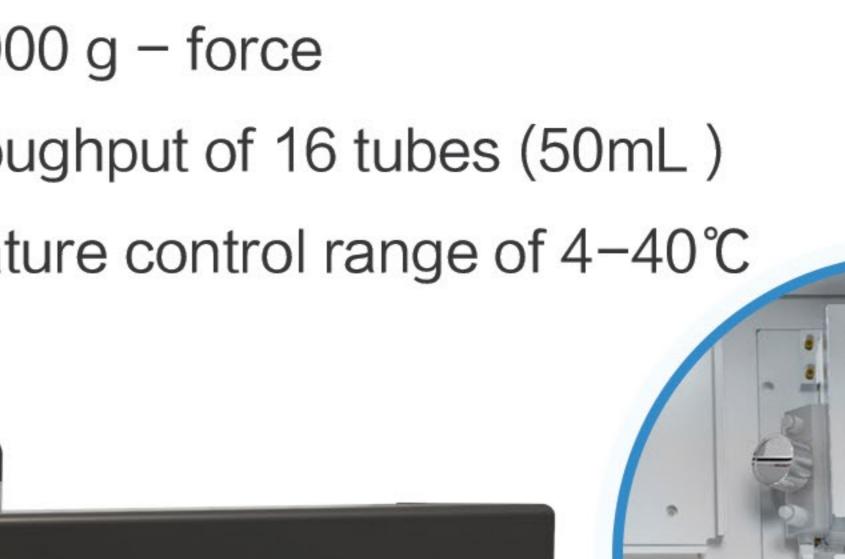
Pumping Assembly

Precise and smooth automatic pumping and liquid control system



Centrifuge

- Up to 4,000 g force
- High throughput of 16 tubes (50mL)
- Temperature control range of 4-40°C



0 Vacuum Filter

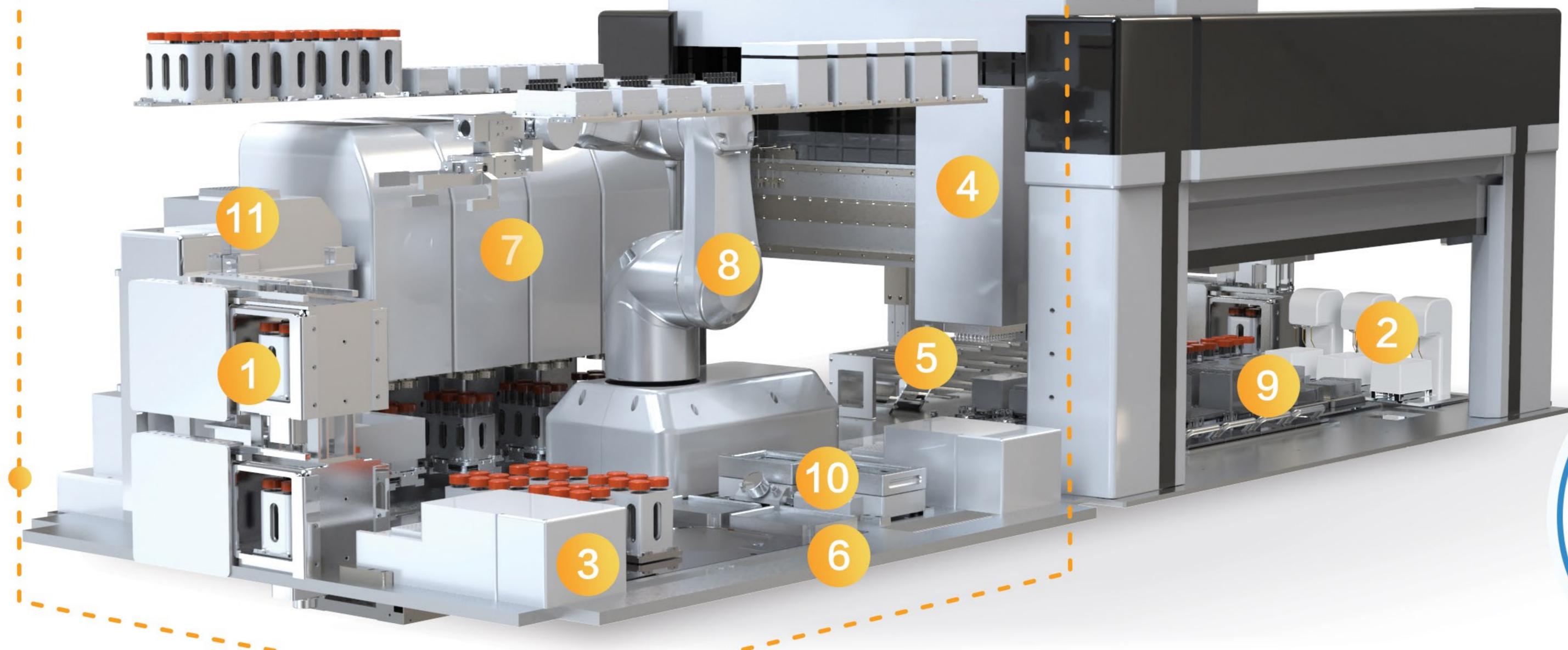
Vacuum operation of plates and tubes



Instrumentation Modules

Compact footprint accommodates multiple miniaturized devices and analytical instruments, such as PCR machine, chip reader, cell imager, cytometer, protein assay plate reader, infrared and UV devices, and various other modules

Flexible configuration based on process needs.





Metallic Bath

Well plate cooling between 2-8℃ and heating up to 95℃

FFS System – Versatile and Customizable Modular Deck Configuration

Modules & Accessories



Over 20 Different Categories of Decappers

Centrifuge Tubes: 2mL / 15mL / 50mL

· Flasks: 125mL / 250mL

· Cryo & Sample Tubes: 0.5mL / 1mL / 2mL / 5mL

· Chromatography & Mass Spectrophotometry: All sizes

Eppendorf Tubes: 1mL / 2mL

· Vials: 2 - 50R



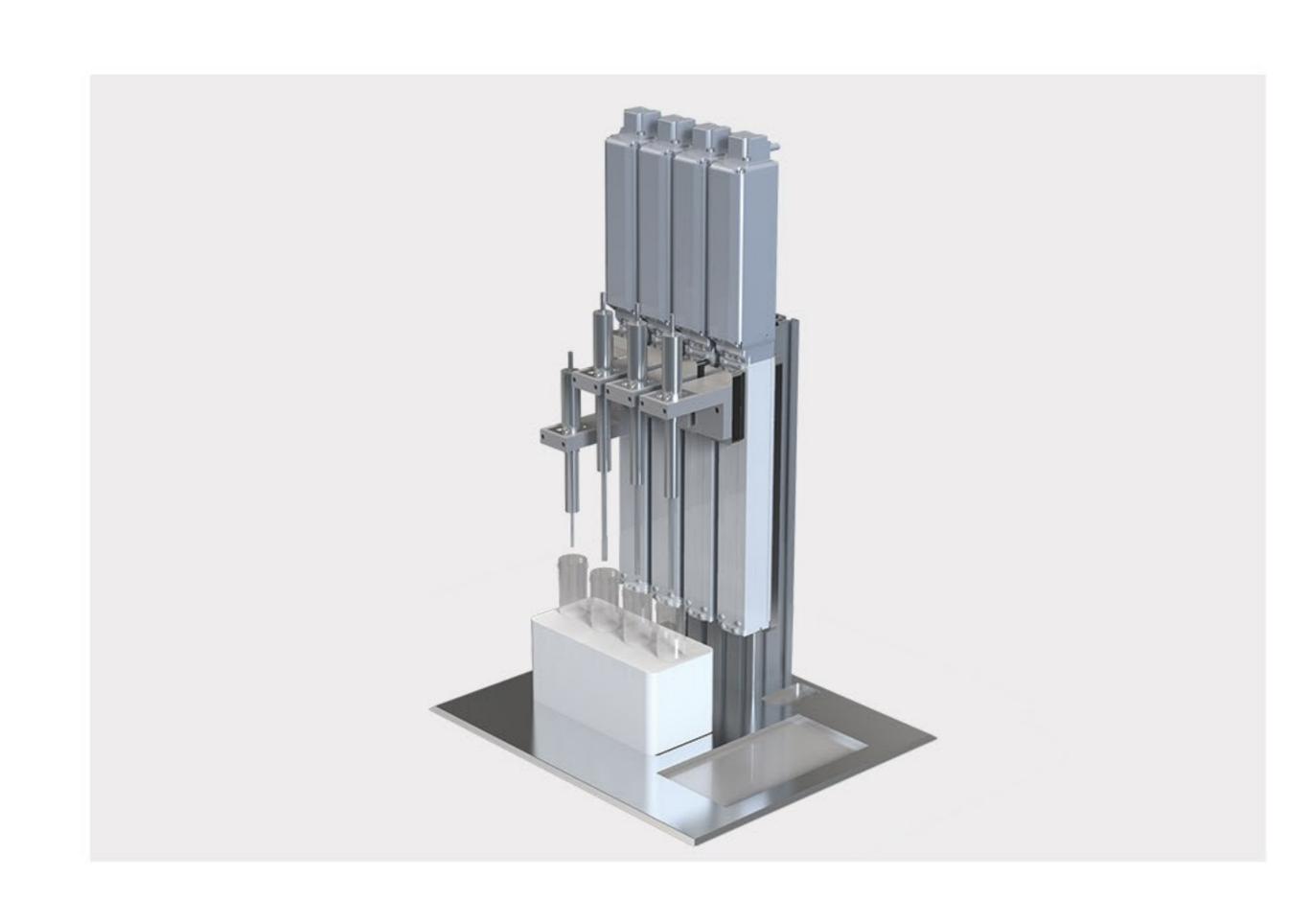
High Viscosity Liquid & Solid Powder Dosing Module

- Accurate dispensing of solid powder within the range of
 1 5,000mg with an error margin of less than 3%
- Dedicated closed loop weighing system
- Independent solid grinding component
- Precise dispensing of high viscosity liquid with an error margin of less than 3%
- Environmental control system



Over 30 Analytical Devices

- INNOMET Plate Reader or third party
- INNOMET Concentration Decive or third party
- INNOMET Cell Counter or third party
- INNOMET Cell Imager or third party
- INNOMET PCR or third party
- INNOMET UV or third party
- High-Content Imager or third party
- Integration capability with any automation ready instruments in the market



Flexible pH Detection and Calibration

- Multi-channel concurrent pH detection and calibration
- Automatic cleaning and dry-up of pH probes
- Automatic calibration of pH sensors



Multiple Methods of Filtration and Purification

- Combined unit of injector and filter
- Chromatography unit
- Pressurized filter unit
- Gravity filter unit



Multiple Shaker Modules with Temperature Control

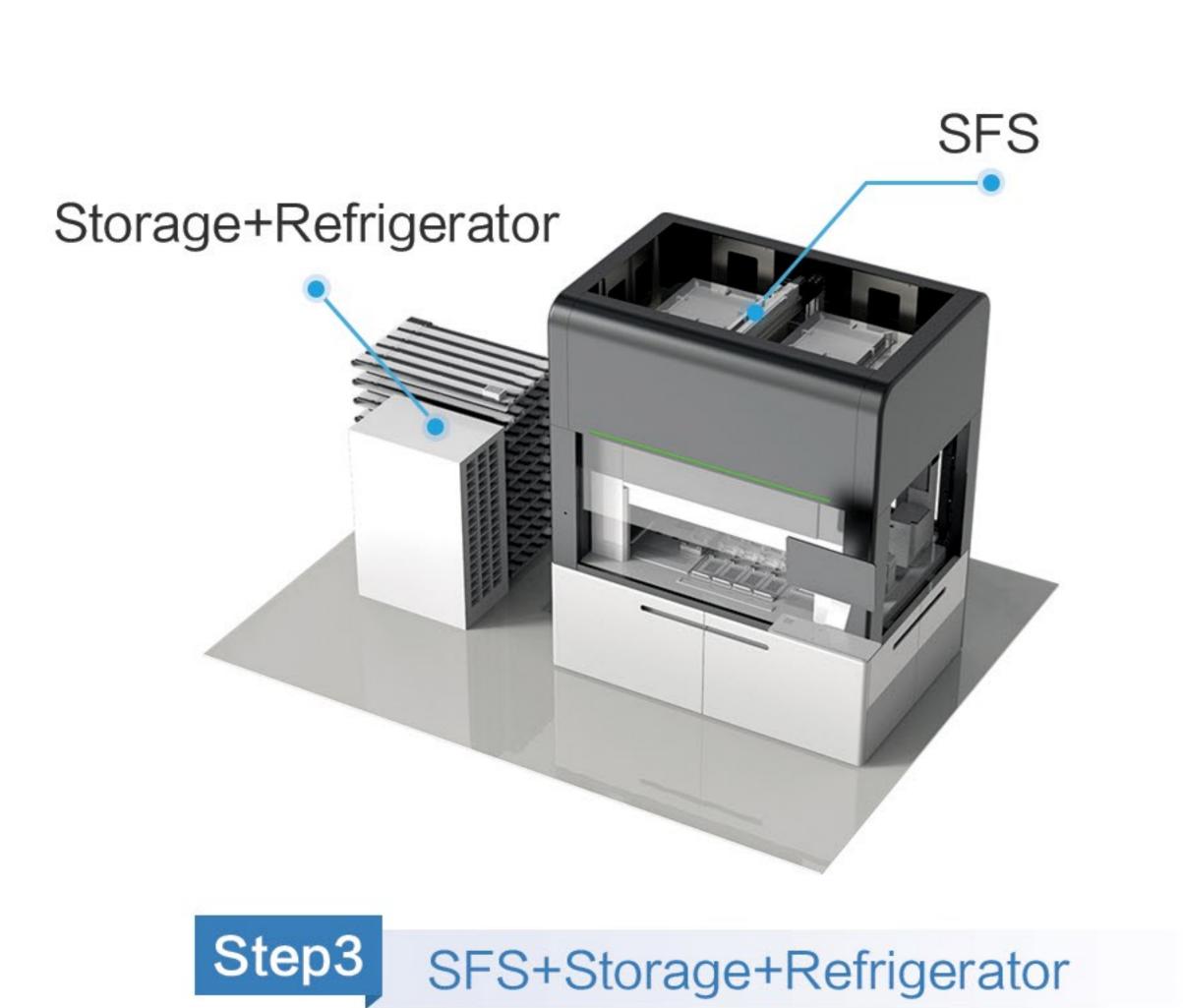
- Well plates
- Centrifuge and culture tubes of any sizes
- Flask sizes up to 250mL
- · Solid powder weighing up to 5,000mg

Pre-Configured Application Systems

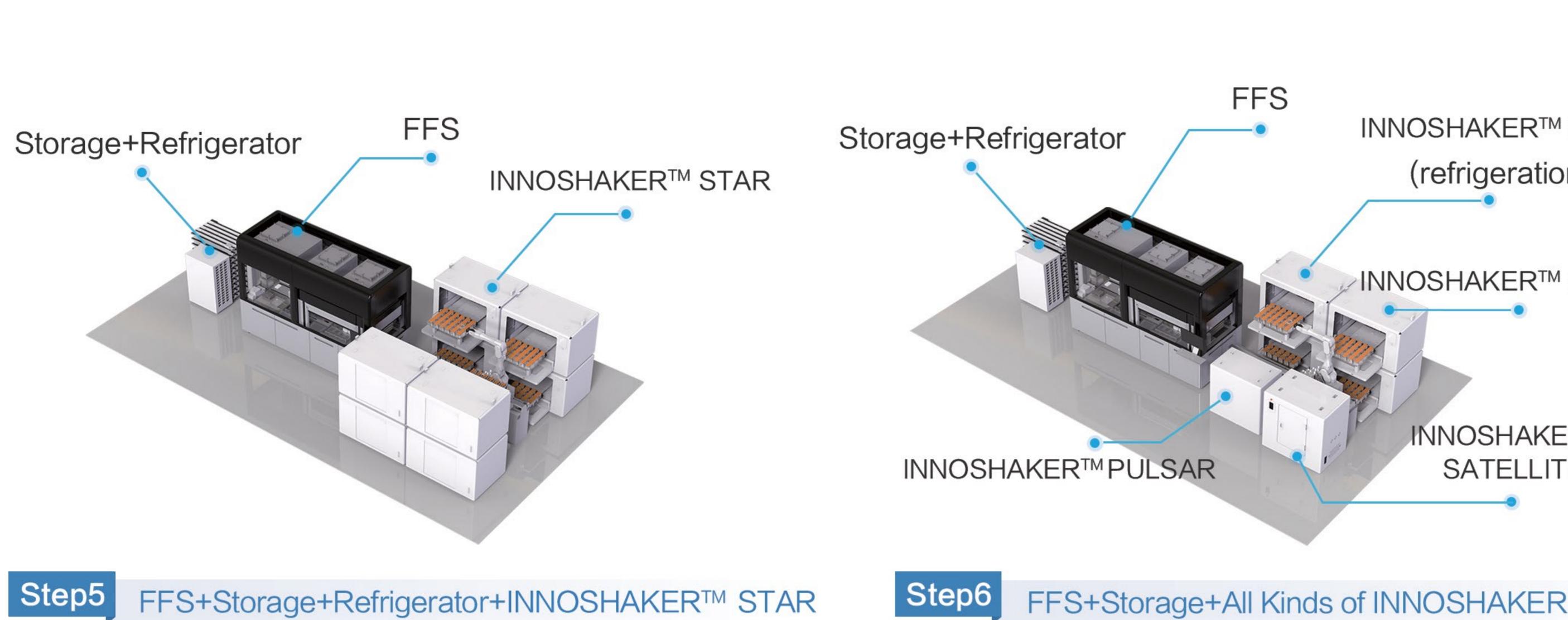
More than 30 applications



Nucleic Acid



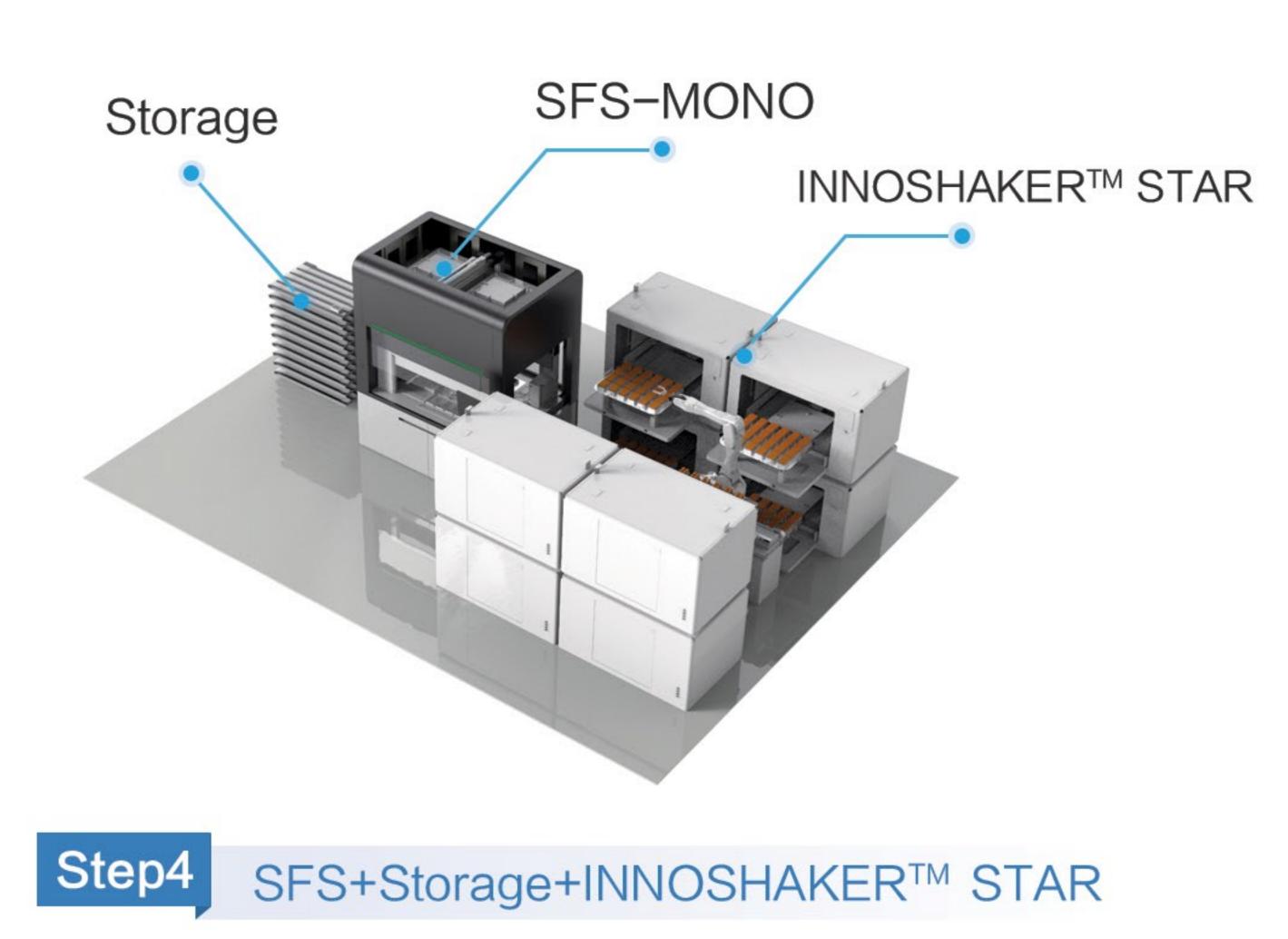
Compound Synthesis



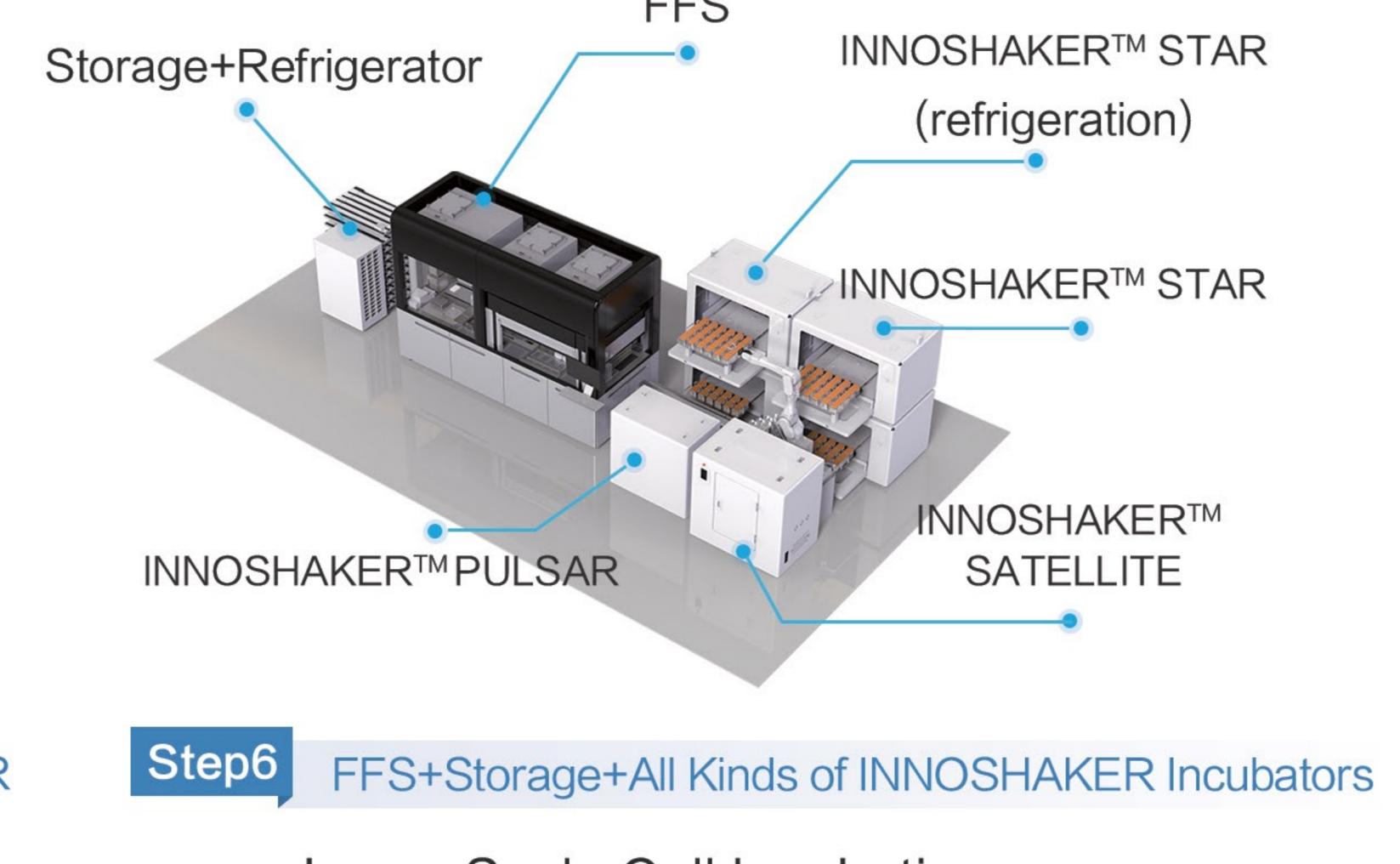
Plasmid Construction



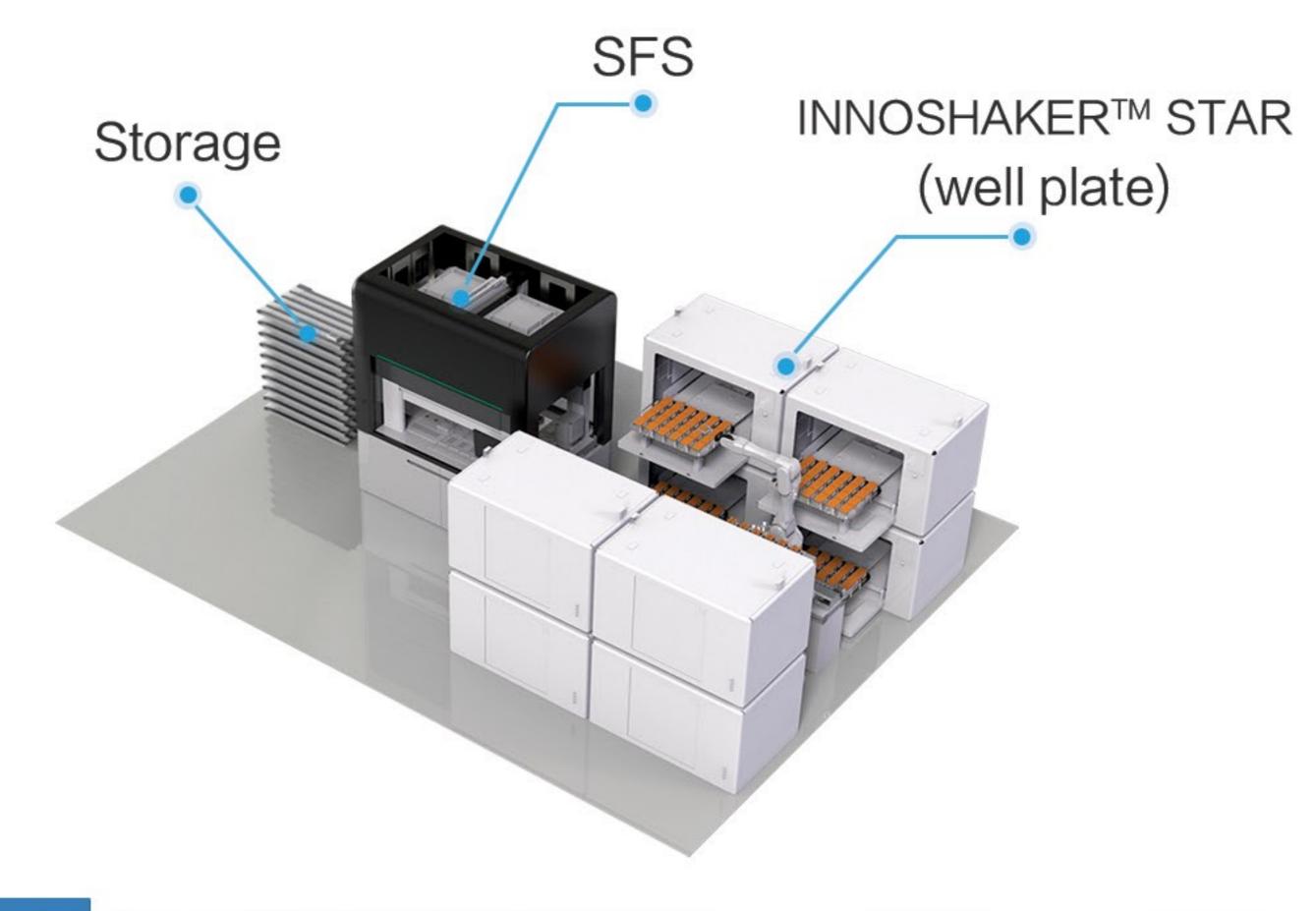
Polypeptide Synthesis



Monoclonal Selection

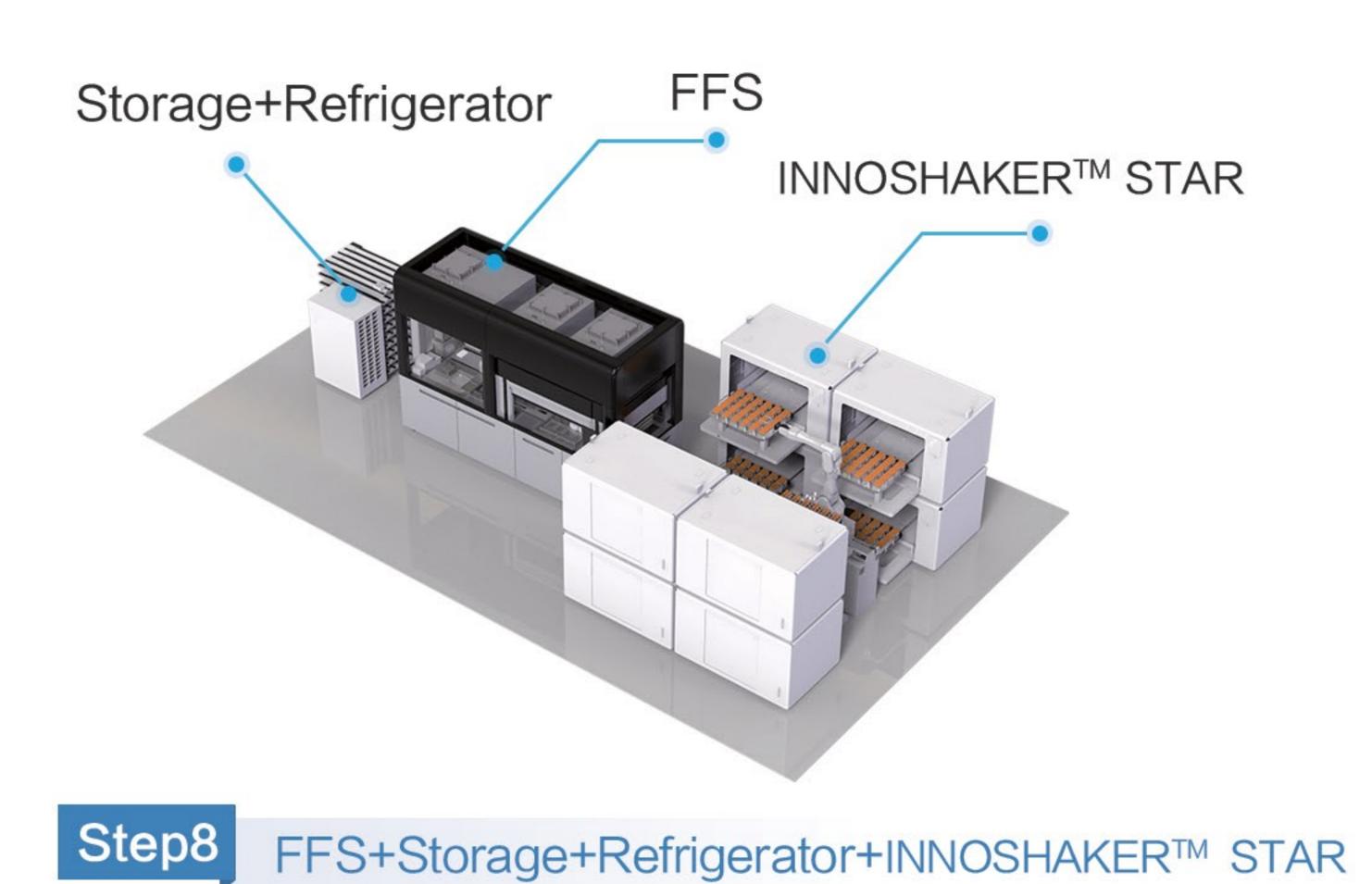


Large Scale Cell Incubation



Step7 SFS+Storage+INNOSHAKER™ STAR (Well Plate)

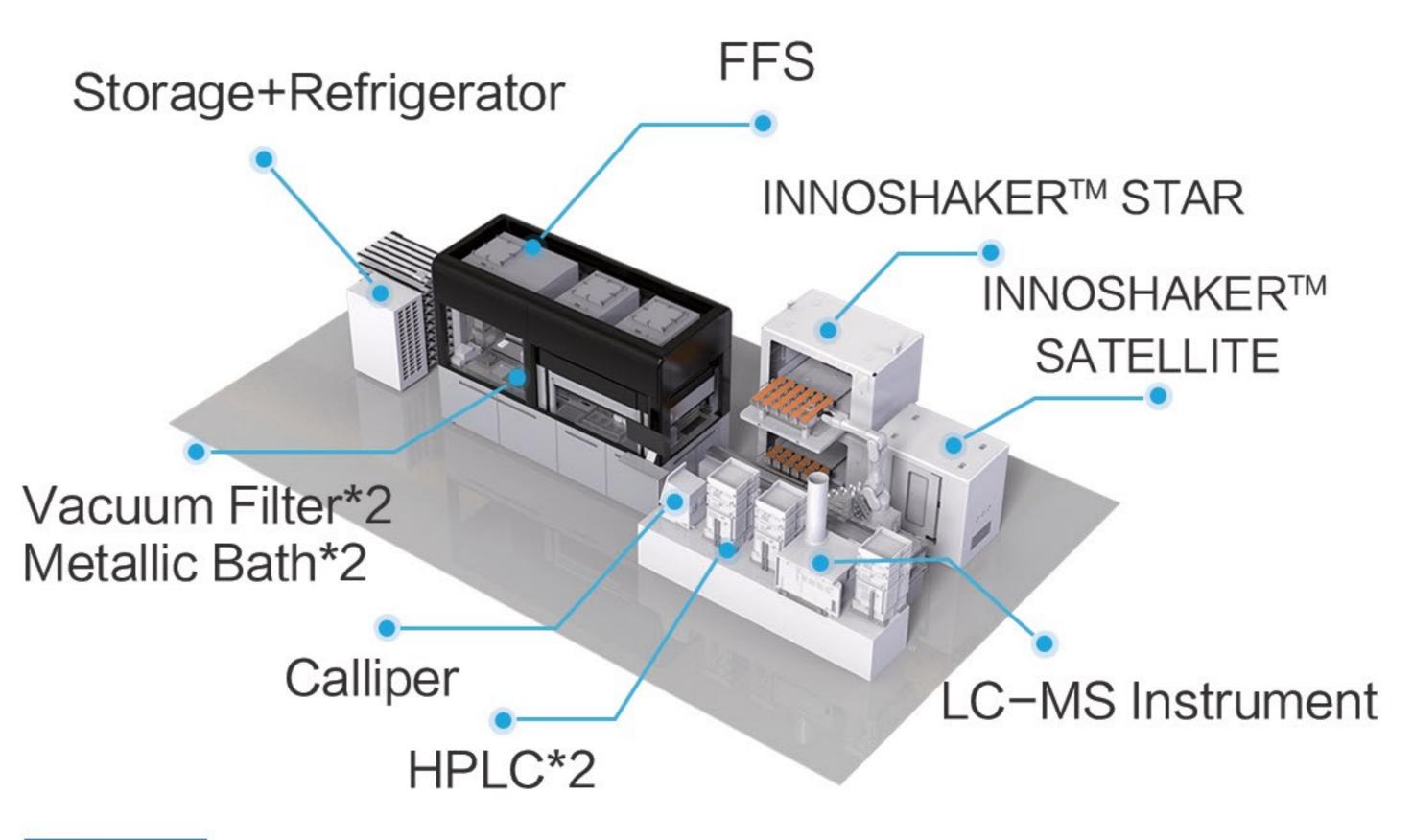
Plasmid Extraction (Well Plates)



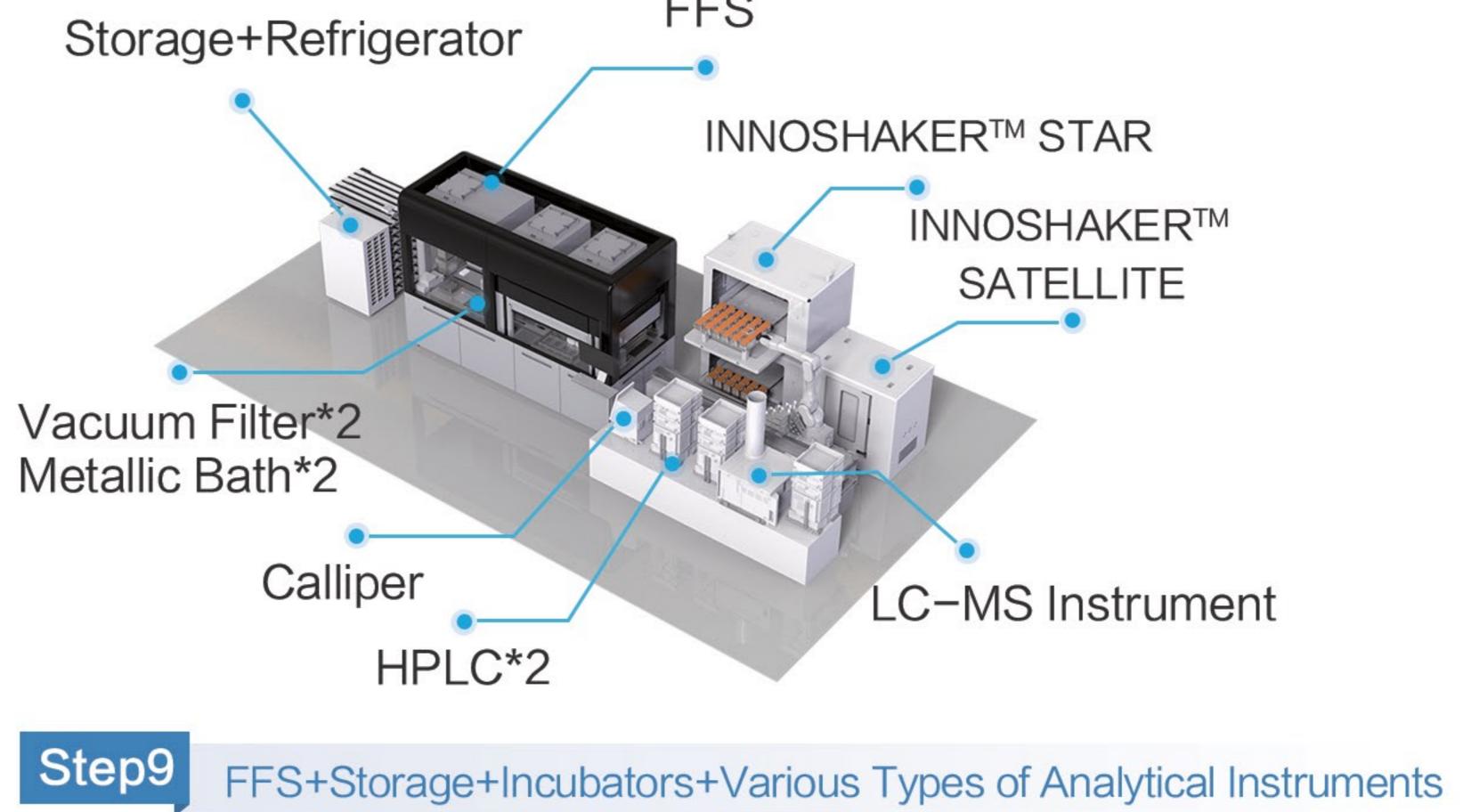
Analytical Platform

Plasmid Extraction (Flasks)

Storage+Refrigerator



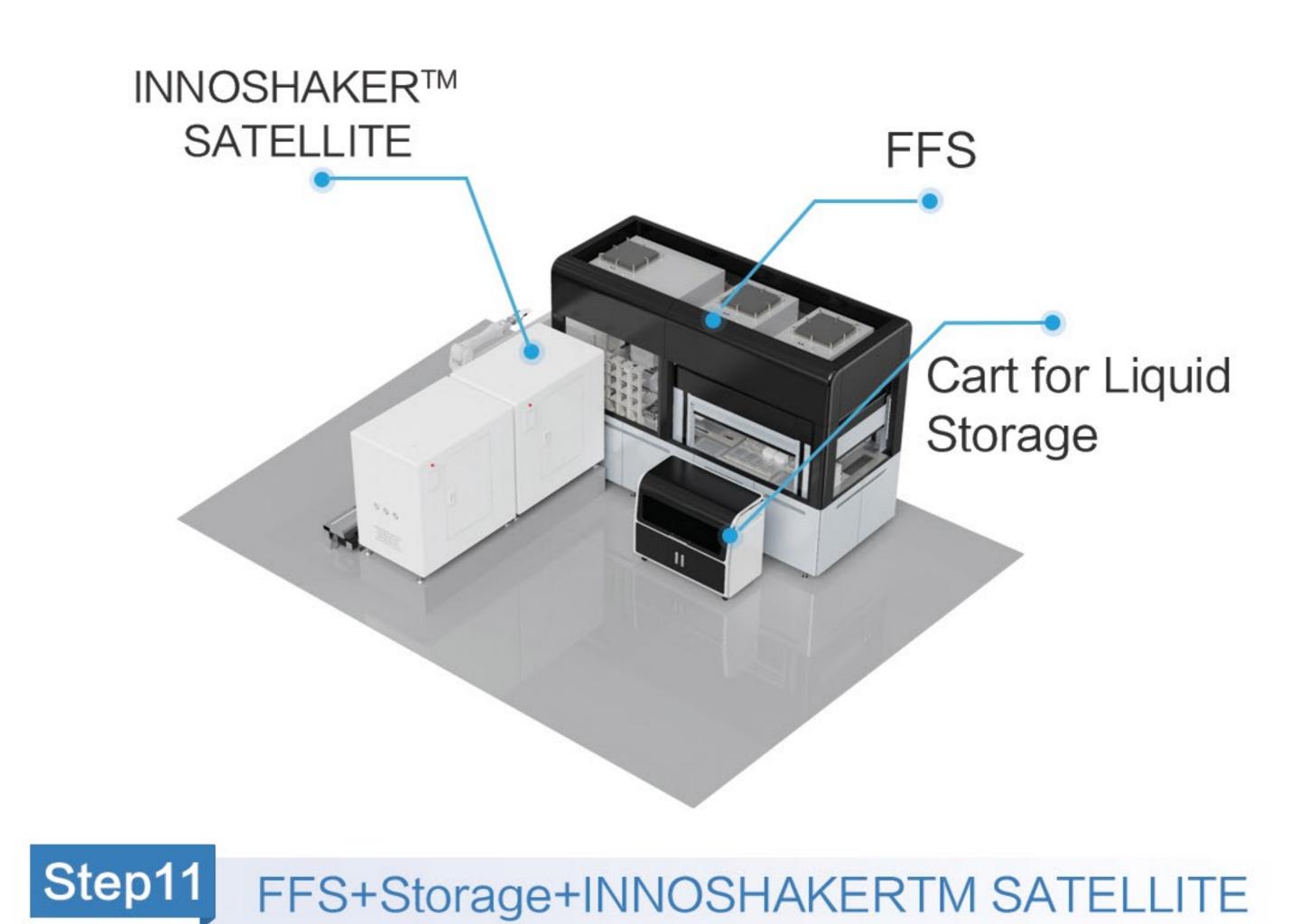
End to End Screening Platform



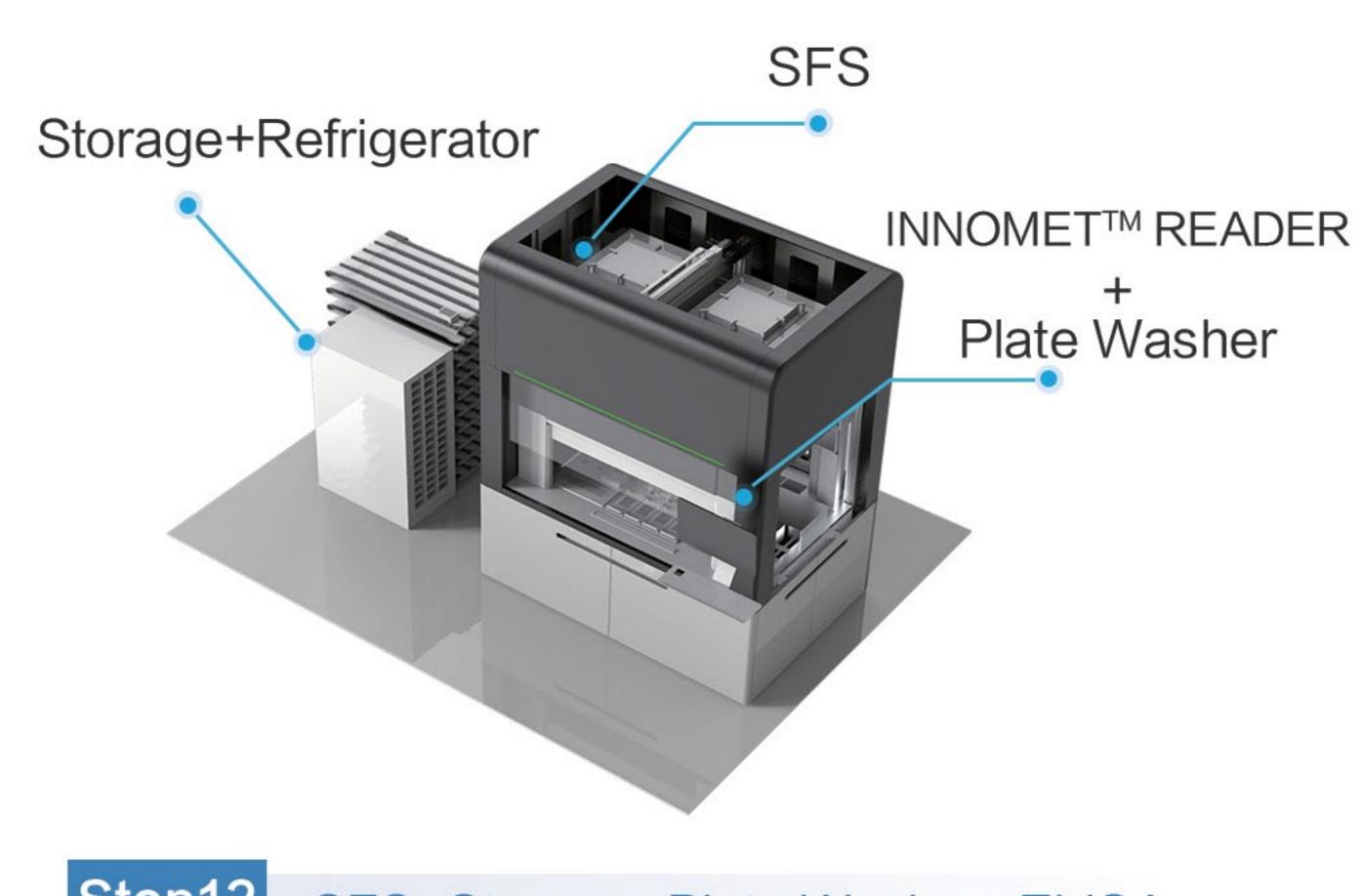
Step10 FFS+Storage+Refrigerator+Analytical Platform

Integrated High-Throughput

Analytical Platform



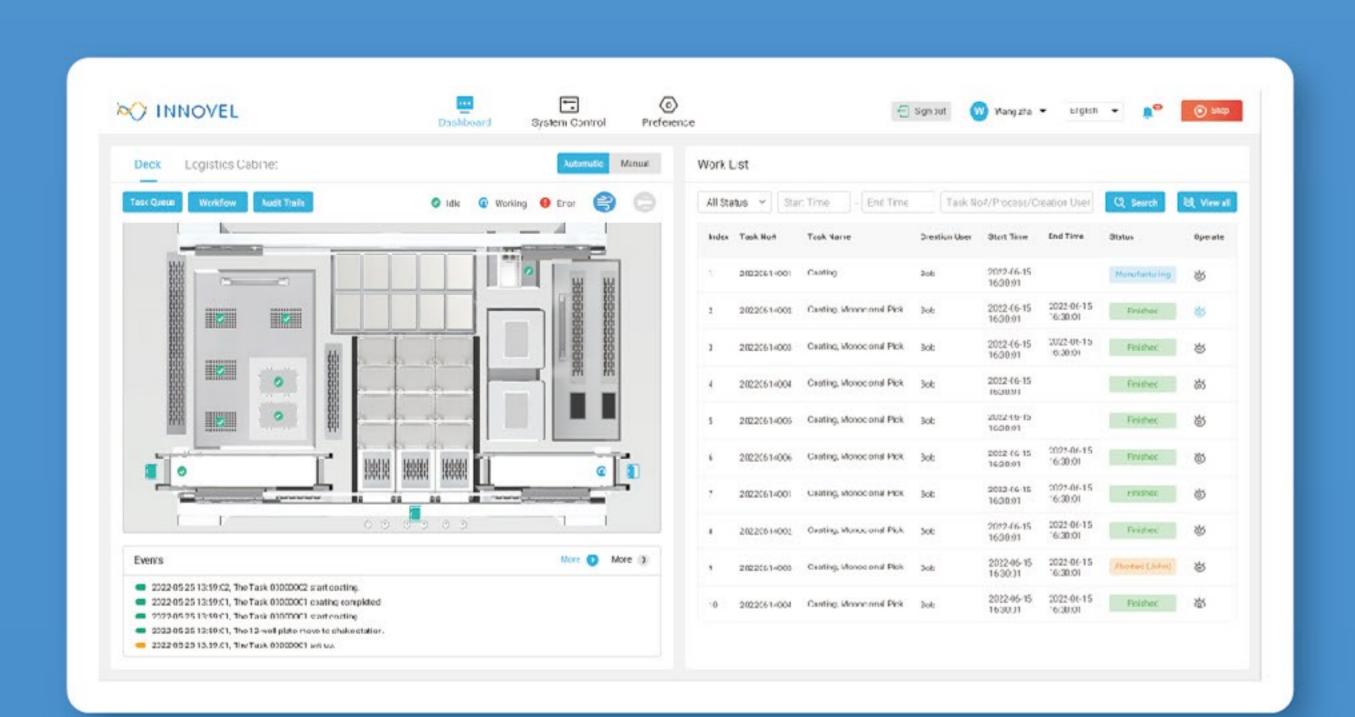
Toxicology & Pathological Testing System

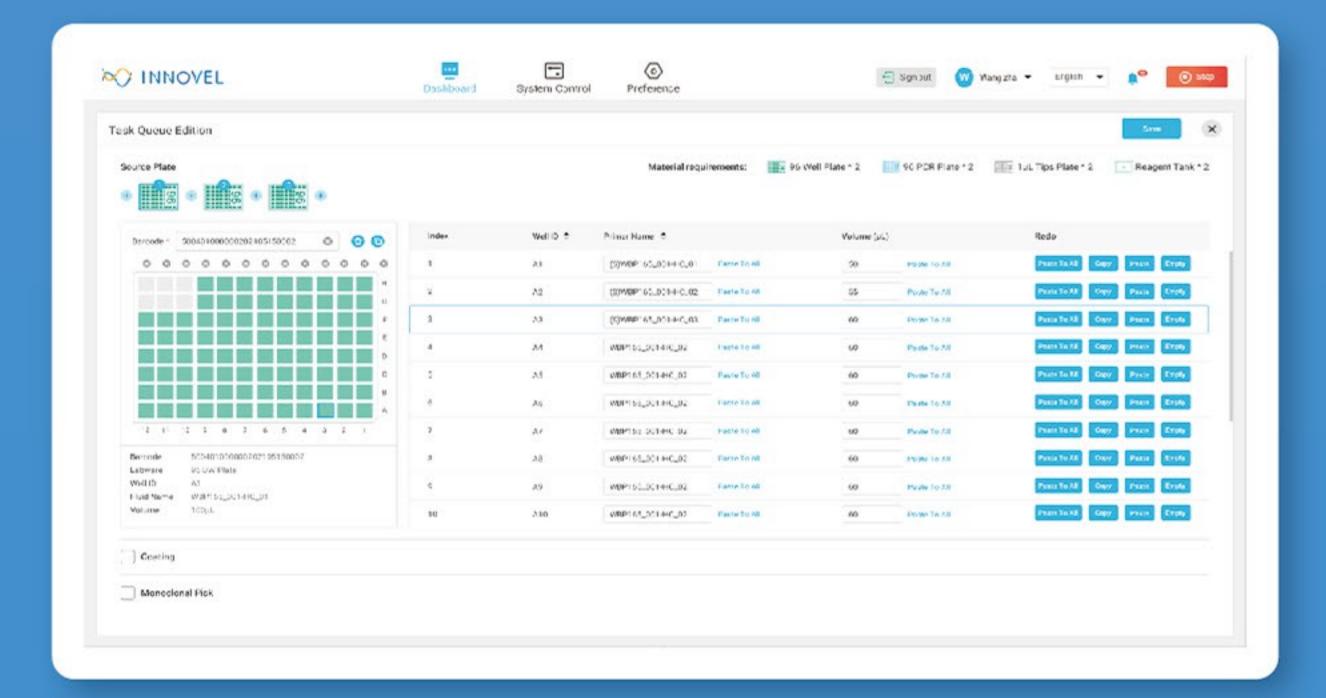


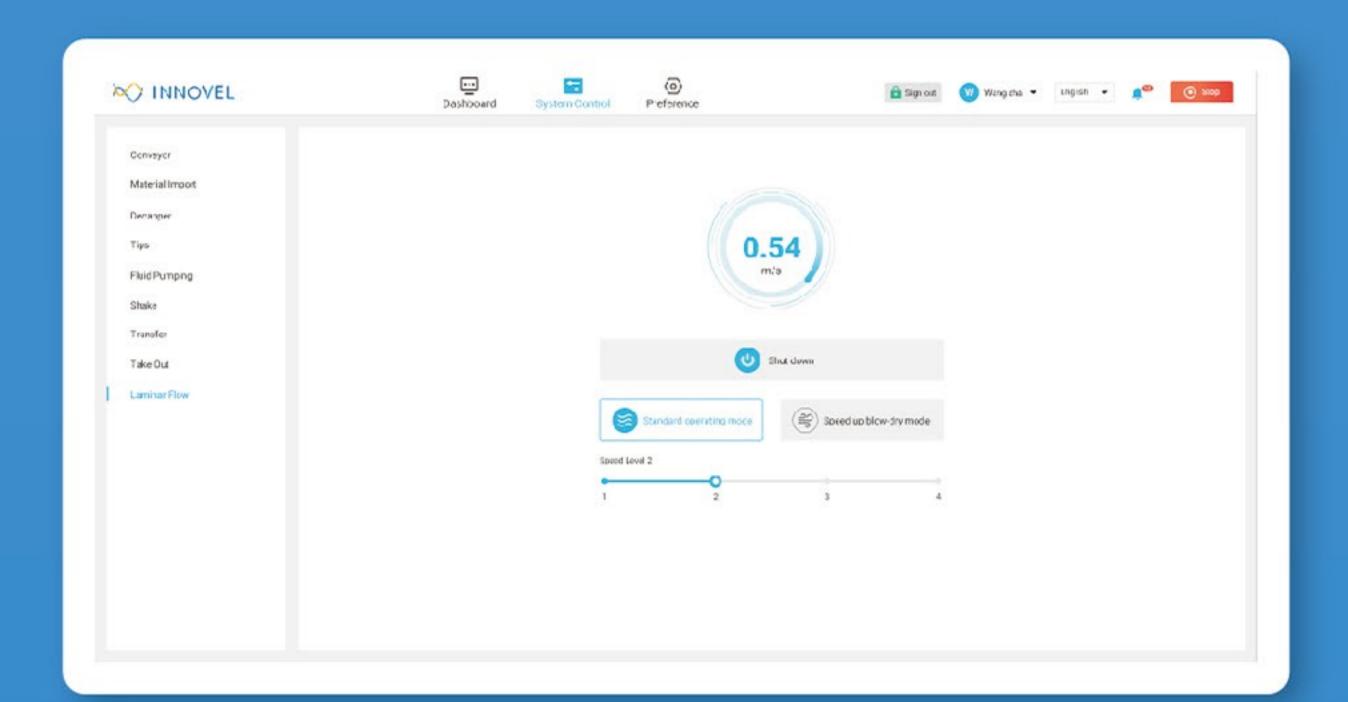
Step12 SFS+Storage+Plate Washer+ELISA

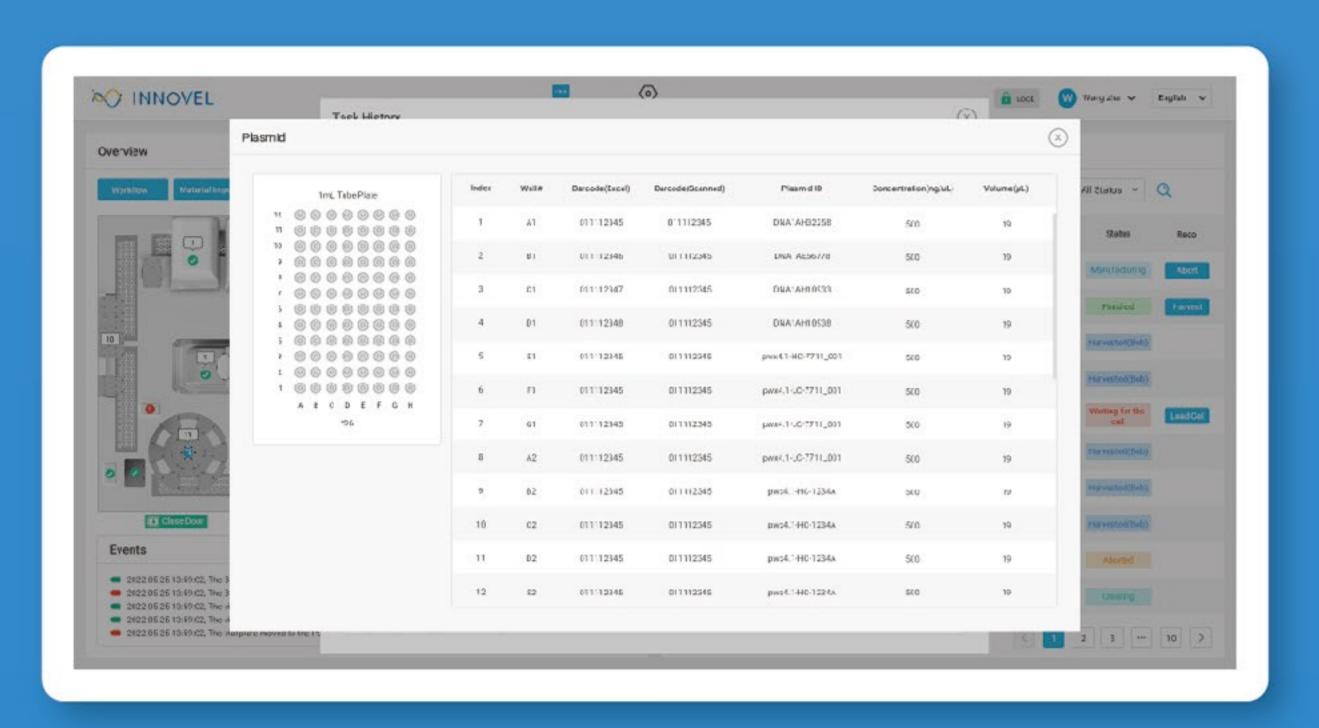
High-Throughput Enzyme-Linked Assay

Integrated System Software









Remote Monitoring and Operation

- Keep connected with your laboratory wherever you are
- Observe system operations in real time
- Monitor the status of consumables
- Real time alerts and notifications

Protocol Designer and Library

- Intuitive and easy to use protocol designer
- Over 30 pre-developed protocols for different applications
- Full oversight of operations and scheduling

Analytics

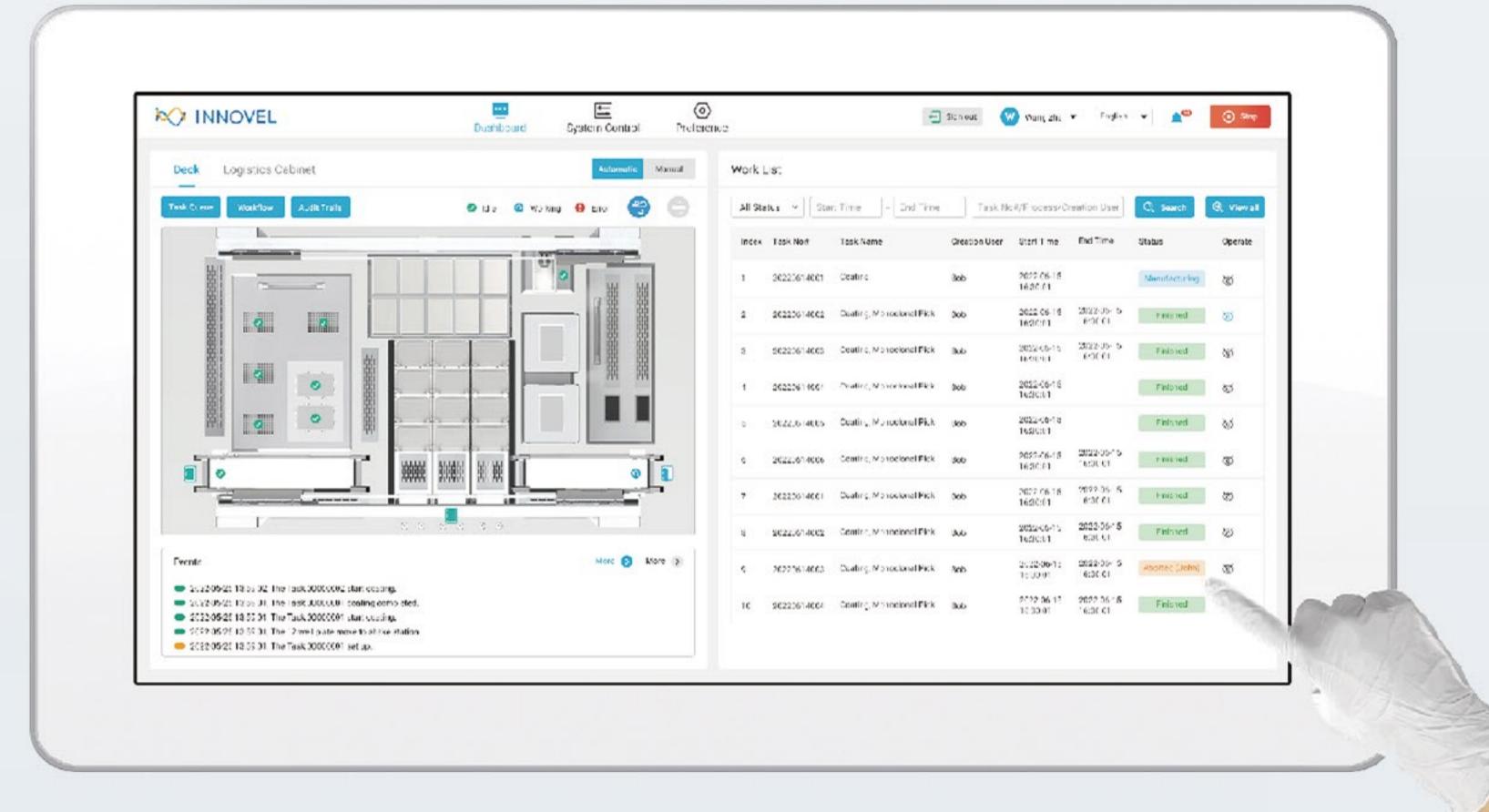
- Analytics dashboard for better control
- · Built in Artificial Intelligence (AI) for greater insights
- Integration capability with 3rd party applications and software

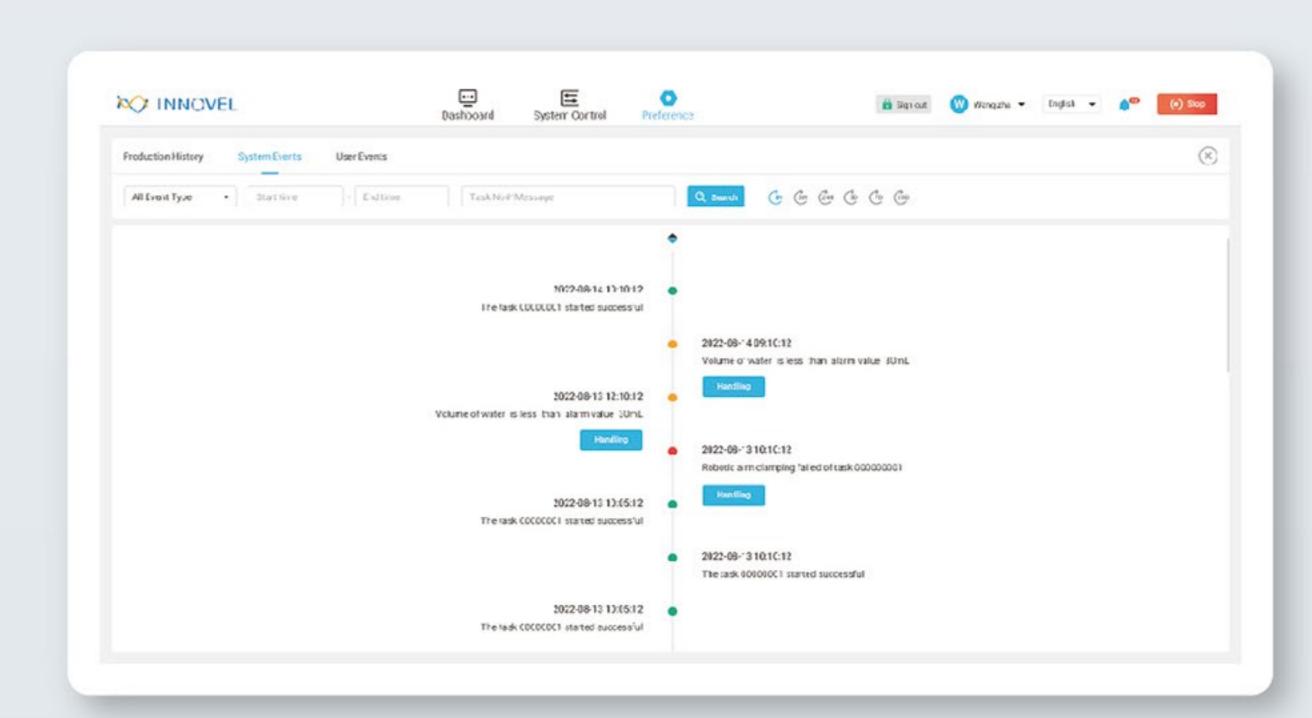
Record Keeping and Data Storage

- Transparency and traceability with individual user
 ID access
- Integration with existing 3rd party information management software
- Customizable queries and reports



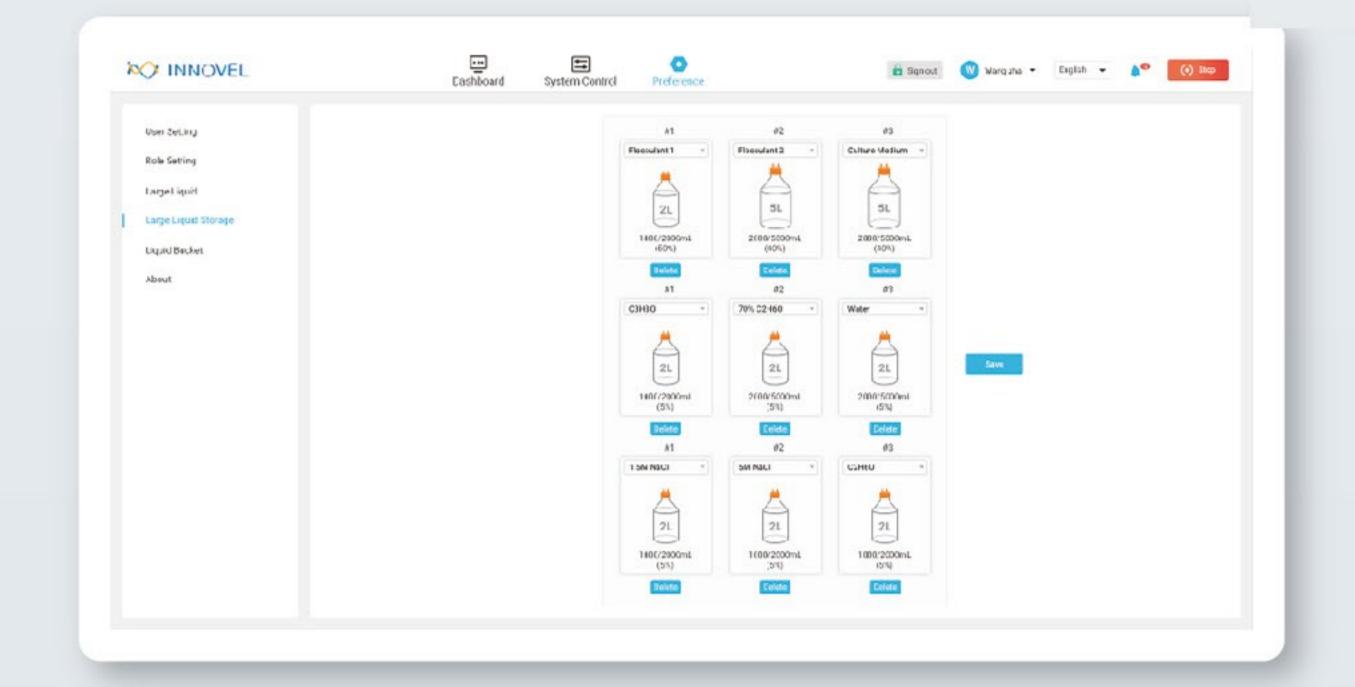






Audit & Reporting

- Complete recording & easy traceability
- Multi-query fully customizable reports
- Real-time alerts and notifications



Systems Setting

- · Intuitive system setup and protocol designer
- · Full oversight of the system and consumables