The information and statistics set out in this section and other sections of this document were extracted from the F&S Report, which was commissioned by us, and from various official government publications and other publicly available publications. We engaged Frost & Sullivan to prepare the F&S Report, an independent industry report, in connection with the [REDACTED]. We believe that the sources of this information are appropriate sources for such information and have taken reasonable care in extracting and reproducing such information. We have no reason to believe that such information is false or misleading or that any fact has been omitted that would render such information false or misleading. The information from official government sources has not been independently verified by us, Joint Sponsors, [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], any of their respective directors and advisors, or any other persons or parties involved in the [REDACTED], and no representation is given as to its accuracy.

OVERVIEW OF ARTIFICIAL INTELLIGENCE INDUSTRY

Development of Artificial Intelligence

With the continuous advancement of AI model technologies and their rapid expansion into industrial applications, general-purpose AI models have gradually revealed limitations in specialization, accuracy, and interpretability. Industry-specific AI models which integrate industry-specific knowledge and rules are becoming increasingly important. The development of such highly efficient industry models relies not only on algorithm innovation but also on the accumulation and utilization of scarce, high-quality data. Such data generated from specific scenarios and complex processes is evolving from a general resource into a core strategic asset that forms long-term technological barriers and competitive advantages for enterprises. Meanwhile, the integration of AI models with multimodal technologies is driving the evolution of embodied intelligence. With AI models serving as the cognitive core (responsible for logical decision-making), the Internet of Things as the connectivity foundation (responsible for unified access and scheduling), and high-precision collaborative robots as execution units, artificial intelligence has formed a complete technological chain from cognition to execution, thereby enabling the collaborative execution of complex automated tasks within the physical world.

Application of Artificial Intelligence

The deep penetration of artificial intelligence into scientific research (i.e., AI for Science or AI4S) is becoming the core driving force reshaping the research paradigm. The State Council’s “Opinions of the State Council on Deepening the Implementation of the ‘Artificial Intelligence＋’ Initiative” (關於深入實施「人工智能＋」行動的意見) explicitly proposes accelerating the exploration of AI-driven novel research paradigms to expedite the process of fundamental and major scientific discoveries. According to the strategic goals set forth in this policy, the application penetration rate of next-generation intelligent agents and automated terminals is expected to exceed 70% by 2027 and surpass 90% by 2030, thereby comprehensively empowering the high-quality development of the macroeconomy. This systemic reshaping of research productivity has gained broad consensus within the international academic community. The authoritative academic journal Nature listed self-driving laboratories as one of the “Seven Technologies to Watch in 2025,” noting that such automated research platforms will provide humanity with affordable and scalable scientific research capacity. Driven by both policy guidance and technological advancement, AI applications have evolved from single-point tools into systemic forces reshaping industrial ecosystems. Its extensive industrial deployment in complex scenarios such as manufacturing, healthcare, and transportation has enhanced AI’s perception and execution capabilities, laying the foundation for deeper scientific applications.

Through in-depth analysis of large-scale scientific data and automated execution of experimental workflows, AI4S systematically enhances the scientific research process. Its effective deployment relies heavily on the coordinated development of underlying infrastructure, which deeply integrates high-throughput experimental facilities with industry-specific algorithms to form an autonomous iterative closed loop of hypothesis generation, experimental design, automatic execution and data feedback, fundamentally transforming the traditional lengthy research model that relies on manual trial and error. In this disruptive process, intelligent laboratory solutions, as the optimal physical infrastructure for AI4S, have systematically accelerated the large-scale application of AI4S in chemical engineering, new materials and other sectors by enabling automation of experimental execution and the intelligence of data flow management, continuously expanding the boundaries of artificial intelligence in solving major scientific challenges.

OVERVIEW OF INTELLIGENT LABORATORY SOLUTIONS INDUSTRY

Definition and Overview of Intelligent Laboratory Solutions Industry

An intelligent laboratory refers to an environment that leverages IoT, automation, or digital technologies to support, optimize, or automate laboratory workflows, facility operating conditions, and data assets. Intelligent laboratory solution refers to a comprehensive solution formed through the systematic upgrading of traditional R&D environments, incorporating technologies such as IoT, automated equipment, software systems, and artificial intelligence. They enable researchers to identify patterns, validate hypotheses, and draw conclusions more quickly, significantly improving overall efficiency, accuracy, and reproducibility.

Beyond helping researchers accelerate pattern recognition and hypothesis validation, such solutions also represent a profound evolution in the research paradigm toward greater efficiency and empowerment. For downstream institutions, these solutions substantially reduce long-term operating costs and accelerate time to market by replacing repetitive labor and significantly increasing experimental throughput and continuity. More importantly, they transform experimental processes that traditionally rely heavily on individual experience into standardized and traceable data assets, helping enterprises accumulate core R&D know-how, systematically enhance their capacity for original discovery, and build strong innovation barriers.

Based on their core functions and business purposes, intelligent laboratories can be primarily classified into new product R&D laboratories, safety testing laboratories, and quality control laboratories. New product R&D laboratories primarily serve frontier exploration in fields such as chemicals, new materials, and biopharmaceuticals. Their core mission is to accelerate the discovery and validation of new substances, new formulations, and new processes through high-throughput experimentation, intelligent pathway optimization, and data-driven attribution analysis. Safety testing laboratories focus on high-risk, highly-toxic, and environmentally sensitive scenarios, such as oil analysis, chemical testing, and biosafety assessment. Quality control laboratories, by contrast, are designed for industrial production and product quality inspection processes, such as consistency testing for daily chemical products, performance validation for battery materials, and food compliance screening, thereby ensuring batch-to-batch consistency and stable product quality.

Development of Intelligent Laboratory Solutions Industry

The laboratory solutions industry is undergoing a structural shift from traditional, manual operations to comprehensive intelligent systems. This evolution began with automated laboratories as the foundational stage of intelligence. Driven by continuous technological advancements, the industry is now advancing into a self-driving model, where AI decision-making serves as the core engine to autonomously guide and optimize the research process.

Stage I: Traditional Laboratories

At this stage, laboratory operations are entirely dependent on manual work. Such laboratories have long faced pain points including low operational efficiency, high rates of human error, and difficulties in conducting cross-comparisons of data. In addition, when handling hazardous or toxic materials, they involve substantial safety risks and hidden management costs.

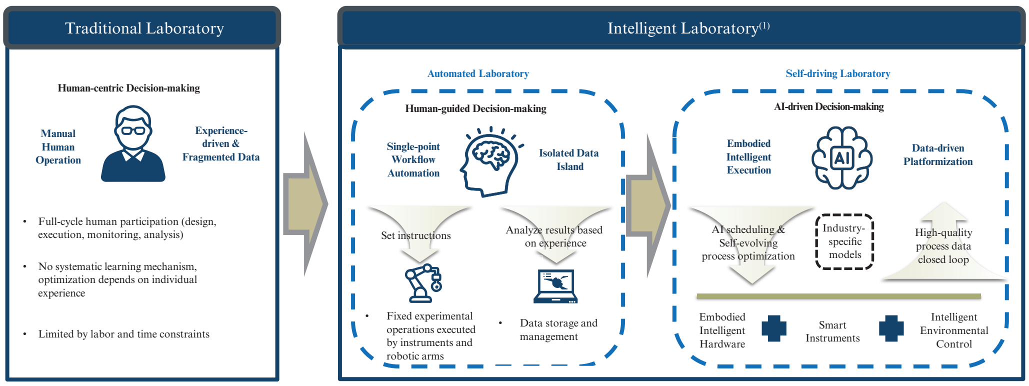
Stage II: Automated Laboratories

To address the efficiency and accuracy bottlenecks associated with labor-driven operations, laboratories began introducing automation equipment such as automatic samplers and robotic workstations. These technologies enable the replacement of manual labor in specific repetitive tasks, thereby improving execution speed and data consistency in targeted processes. At the same time, the system can automatically collect and analyze experimental data in real time, identify complex patterns, and provide recommendations for parameter adjustments, marking the formal transition into a human-machine collaboration model.

Stage III: Self-Driving Laboratories

Self-driving laboratories represent the most advanced form of the intelligent laboratory model. They leverage AI decision-making and embodied intelligent execution to automate and synchronize complex workflows, ensuring adaptive performance in sample handling, experiment execution and data analysis. Such platforms are capable of understanding complex research objectives and precisely decomposing preset technical routes into executable automated task sequences. Especially in scenarios heavily dependent on trial and error, such as compounding advanced formulations and exploring new materials, the system can leverage feedback from the product application end through real-time data analysis to reverse-drive formulation adjustments and experimental optimization, realizing a full-lifecycle closed loop from material design to product application. This complete chain achieves an order-of-magnitude leap in R&D efficiency while continuously enhancing operational precision. This stage fundamentally eliminates the ultimate dependence on human labor and represents the final transformation of the research paradigm from labor-intensive to intelligence-intensive.

Comparative Analysis of Traditional, Automated, and Self-Driving Laboratories



Source: Frost & Sullivan

(1) Automated laboratories and self-driving laboratories both fall under the category of intelligent laboratories.

Value Chain Analysis of Intelligent Laboratory Solutions Industry

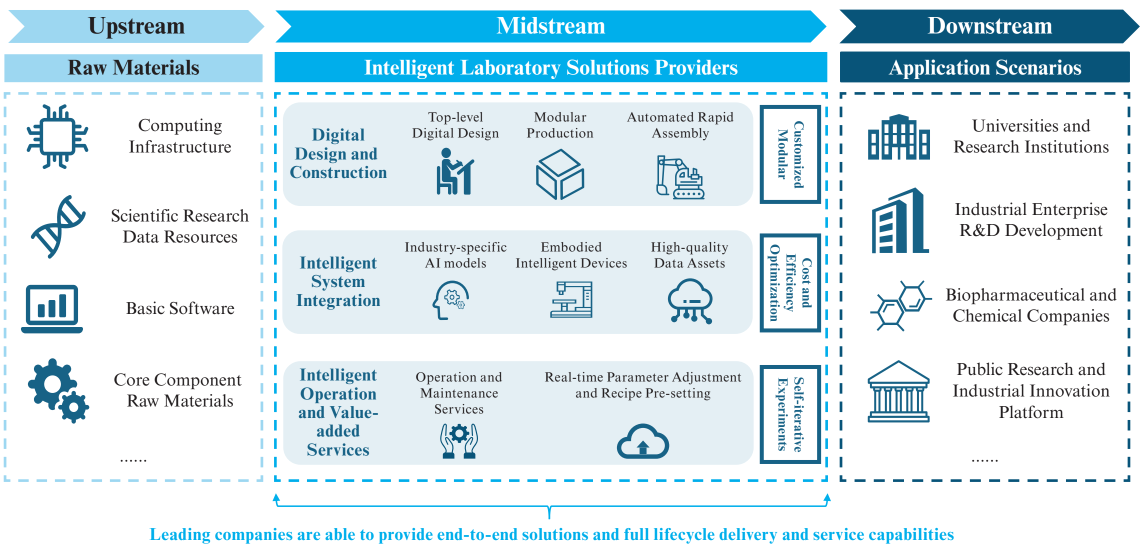
The upstream mainly encompasses computing infrastructure, scientific research data resources, and basic software. It also includes key raw materials and core components for automated production equipment, such as sensing and vision modules, precision-machined parts, and motors. These upstream elements collectively constitute the underlying technological foundation and material basis of intelligent laboratories.

The midstream is the core link of the industry chain, primarily composed of intelligent laboratory solution providers. They are responsible for deeply integrating upstream computing infrastructure and core components to build a sustainable intelligent laboratory system. The core advantage of leading intelligent laboratory solution providers lies in their deep vertical integration capabilities. Technically, they not only integrate various hardware and algorithms but also, through independent research and development, establish technological moats in core industry-specific AI models, precision robot control, and multi-device collaborative scheduling platforms, forming a stable and efficient integrated hardware and software system. At the industrialization level, this technological advantage further translates into engineering delivery capabilities for complex scenarios.

The downstream covers various application areas of intelligent laboratories, including universities and research institutions, R&D departments of industrial enterprises, biopharmaceutical and chemical companies, and government-led or park-led public research and industrial innovation platforms.

Leading companies in the industry possess full lifecycle delivery and service capabilities, covering early-stage digital design, prefabricated production of laboratory modules, on-site automated assembly. Building on this foundation, they deeply integrate continuously evolving industry-specific AI models to accurately accumulate core process knowledge in fields such as chemicals and new materials. Leveraging this comprehensive capability that spans hardware infrastructure, system integration, and intelligent operations and maintenance, these enterprises can rely on high-quality data streams post-delivery to consistently provide clients with in-depth services, including process attribution analysis, parameter tuning, and formulation prediction. By accelerating the iteration of experimental pathways, this highly integrated solution directly drives the research and innovation of new materials and formulations. By providing highly integrated solutions, these companies can deeply embed themselves in customers' research and production processes, significantly enhancing customer loyalty and long-term cooperation stability.

Value Chain Analysis of Intelligent Laboratory Solutions Industry



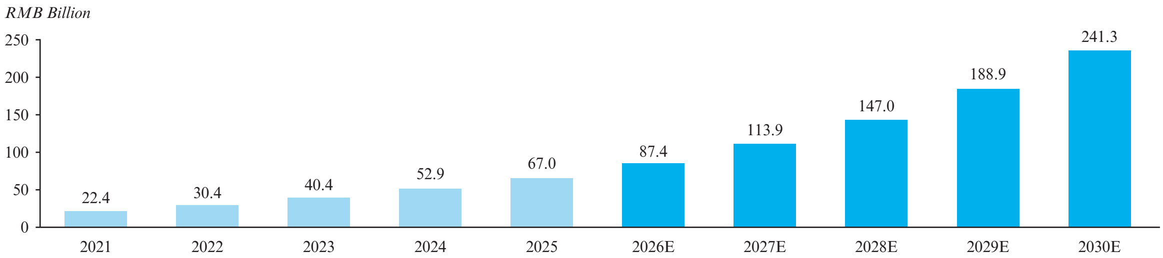
Source: Frost & Sullivan

Market Size Analysis of Intelligent Laboratory Solutions Industry

The global intelligent laboratory solutions market has maintained rapid growth in recent years, increasing from RMB22.4 billion in 2021 to RMB67.0 billion in 2025, at a CAGR of 31.5%. Looking ahead, with continued increases in downstream R&D investment and the deep penetration of AI technology, the global intelligent laboratory solutions market is projected to reach RMB241.3 billion by 2030, at a CAGR of 29.2% from 2025 to 2030.

Market Size of Global Intelligent Laboratory Solutions Industry, 2021–2030E

	CAGR 2021–2025	CAGR 2025–2030E
Global Intelligent Laboratory Solutions Industry	31.5%	29.2%

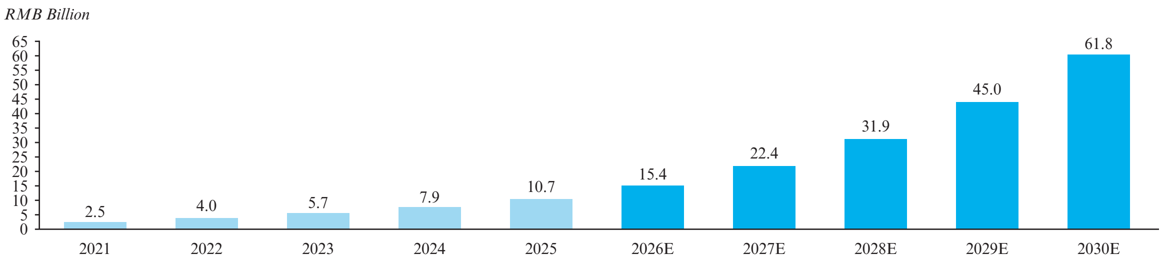


Source: The Society for Laboratory Automation and Screening (SLAS), Ministry of Science and Technology of China, National Science and Technology Management Information System Public Service Platform, Frost & Sullivan

The China's intelligent laboratory solutions market grew from RMB2.5 billion in 2021 to RMB10.7 billion in 2025, at a CAGR of 43.8%. It is projected to further expand to RMB61.8 billion by 2030, at a CAGR of 42.1% from 2025 to 2030. In terms of application scenarios, life sciences and chemicals are currently the two core application sectors, accounting for over 60% of the overall market in 2025. New energy, food, and other sectors such as semiconductors and environmental monitoring are showing stronger growth momentum, with their market share expected to reach 17.2%, 9.8%, and 27.4% respectively by 2030. The industry application structure is gradually expanding from traditional lab-intensive fields to diverse emerging application scenarios.

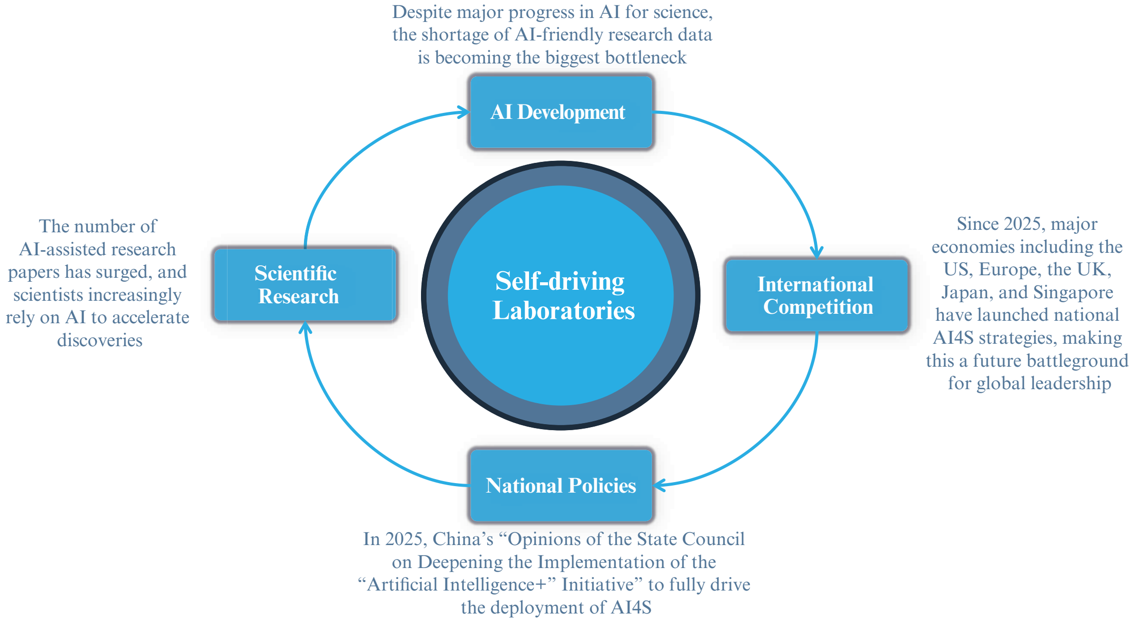
Market Size of China's Intelligent Laboratory Solutions Industry, 2021–2030E

	CAGR 2021–2025	CAGR 2025–2030E
China's Intelligent Laboratory Solutions Industry	43.8%	42.1%



Source: Ministry of Science and Technology of China, National Science and Technology Management Information System Public Service Platform, Frost & Sullivan

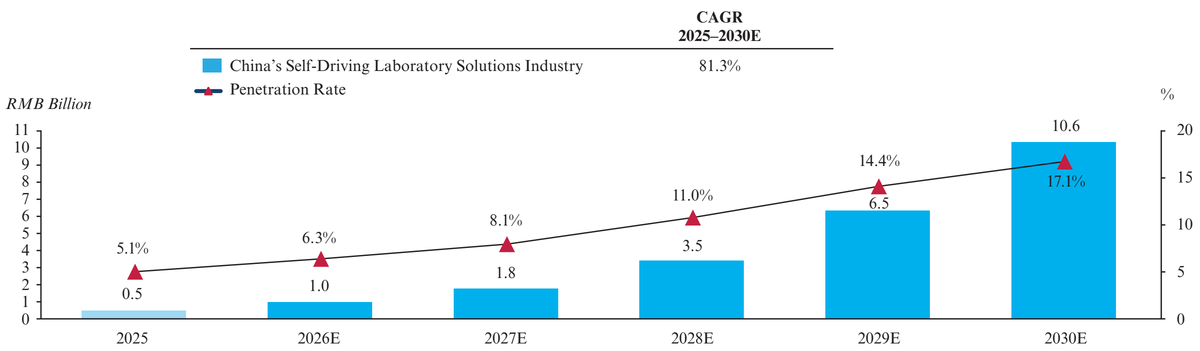
Importance Analysis of Self-driving Laboratories



Source: Frost & Sullivan

As the most advanced form of intelligent laboratories, self-driving laboratory solutions are characterized by high technical thresholds and significant entry barriers, as they require the deep integration of industry-specific AI models, high-quality data infrastructure, automated experimental equipment, and intelligent environmental control systems. Some leading technology companies have already begun verifying key technologies and implementing typical application scenarios, laying the foundation for large-scale deployment. Against this backdrop, the China's self-driving laboratory solutions market is projected to maintain rapid growth, increasing from RMB0.5 billion in 2025 to RMB10.6 billion in 2030, at a projected CAGR of 81.3% from 2025 to 2030. During the same period, the proportion of self-driving laboratory solutions in the overall intelligent laboratory solutions market is also expected to rise from 5.1% in 2025 to 17.1% in 2030.

Market Size of China's Self-Driving Laboratory Solutions Industry, 2025–2030E



Source: Ministry of Science and Technology of China, National Science and Technology Management Information System Public Service Platform, Frost & Sullivan

Market Driver and Development Trend Analysis of Intelligent Laboratory Solutions Industry

Global Policies Accelerate the Penetration of Intelligent Laboratories

Amidst escalating global technological competition, major economies are intensively rolling out strategic plans to accelerate the upgrading of research paradigms. The Outline of the 14th Five-Year Plan for Economic and Social Development and Long-Range Objectives Through the Year 2035 of the People's Republic of China (中華人民共和國國民經濟和社會發展第十四個五年規劃和2035年遠景目標綱要) explicitly states the need to optimize the innovation system based on national strategic needs and accelerate the construction of a strategic scientific and technological force led by national laboratories. The "Disruptive Technologies Foresight 2025" (顛覆性技術前瞻2025) report released by ISTIC (Institute of Scientific and Technical Information of China) has explicitly listed "self-driving laboratory" as one of the key disruptive technologies in the field of artificial intelligence. This official recognition not only verifies its revolutionary nature but also indicates that related research and application will receive continued policy support and resource focus, accelerating the transition from proof-of-concept to industrial deployment.

Internationally, in October 2025, the European Commission released "A European Strategy for Artificial Intelligence in Science", aiming to accelerate the application of AI in European industry and science. Similarly, the UK's "AI for Science Strategy" establishes AI-driven scientific research as a key direction for enhancing national scientific competitiveness, proposing the development of general-purpose AI scientific tools and exploring new forms of research infrastructure represented by autonomous laboratories. In July 2025, the United States proposed in its "America's AI Action Plan" to increase national-level investment and build automated, cloud-enabled laboratories for various scientific fields. Subsequently, in November 2025, the "Genesis Mission" explicitly proposed leveraging federal datasets to build AI models and agents that automate workflows and accelerate scientific breakthroughs. Furthermore, in March 2026, Japan formulated the "AI for Science Initiative". This policy designates the five years from 2026 to 2030 as an intensive reform period, outlining the overarching direction for systematically advancing this field as a national strategy while specifying concrete implementation pathways and action plans.

Downstream Industry Demand Drives the Transformation of Intelligent Laboratories

The rapid development of downstream industries such as food and pharmaceuticals, chemicals, new chemical materials, and new energy is the core engine driving the transformation of intelligent laboratories. In 2025, according to the National Bureau of Statistics, the operating revenue of the agricultural and sideline food processing industry exceeded RMB5.3 trillion. The operating revenue of the pharmaceutical manufacturing industry reached nearly RMB2.5 trillion, reflecting the significant scale and pillar role of the two industries in China's industrial system. In the food and pharmaceutical sector, intelligent laboratories can not only accelerate drug screening, molecular design, and preclinical validation through high-throughput automated platforms, significantly shortening the new drug launch cycle; but also achieve automatic data collection and integrity management in food safety testing and drug quality control through a digitalized system and automated testing equipment.

According to the China Petroleum and Chemical Industry Federation, China's petrochemical industry recorded operating revenue of RMB15.7 trillion in 2025, representing an increase of 41.4% compared with 2020. In the chemical industry, intelligent laboratories, by introducing robots and remote control systems, liberate laboratory personnel from highly toxic, flammable, and explosive hazardous experimental environments. Meanwhile, intelligent reaction systems are used to automatically optimize process parameters, improving reaction yields and reducing emissions of waste gas, wastewater, and solid waste. This model not only significantly reduces the risk of safety accidents but also promotes the upgrading of chemical R&D towards green and automated directions. In the field of new chemical materials, intelligent laboratories, by introducing the concept of materials genomics and high-throughput automated screening platforms, combined with

AI-assisted formulation design, can synthesize and characterize tens of thousands of formulation combinations in a short time, thus breaking through the efficiency bottleneck of traditional trial-and-error methods.

Global lithium battery shipments will grow from 2,202.0 GWh in 2025 to 5,548.6 GWh in 2030, at a CAGR of 20.3%. In the field of new energy materials, the intelligent laboratory builds a closed-loop automated experimental system focused on the formulation design and development of cathode and anode materials as well as electrodes. It combines AI models to optimize material structures and predict electrochemical behaviors, thereby efficiently screening and iterating the next generation of energy storage materials with high energy density, long cycle life, and high safety.

Technological Advancements Drive Laboratory Upgrades

Traditional manual experimental methods have long been constrained by efficiency bottlenecks, subjective errors, and ever-increasing management costs. As modern scientific research demands increasingly stringent precision and repeatability, the transformation of laboratories towards intelligent systems has evolved from an efficiency-optimized choice to an inevitable path with clear economic rationality. In this process, industry-specific AI models have become a key technological pillar. Specialized large-scale models trained based on expertise in biochemistry, materials science, and other fields have elevated artificial intelligence from a general-purpose auxiliary tool to a professional research engine. Currently, leading companies in the industry have built "AI self-driving brain" industry models as the system's decision-making center. This brain is deeply integrated with general AI R&D platforms, endowing the system with powerful self-learning and adaptive evolution capabilities through unified scheduling of intelligent environments and embodied intelligent operating equipment. This allows laboratories to continuously iterate their models during operation, accumulating high-quality experimental and environmental parameters, thereby building an unbreakable data asset barrier for enterprises.

Enhancements in computing power, massive data accumulation, and breakthroughs in deep learning algorithms have not only driven the rapid development of artificial intelligence technology itself but also enabled the large-scale application of AI across scientific research scenarios. Concurrently, the rapid proliferation of AI capabilities has not only highlighted its strong and immense demand for massive, high-quality experimental data but also exposed the inherent bottlenecks of traditional experimental execution in terms of response time and flexibility. This dual pressure from both the application and data sides has inversely driven the accelerated iteration of automated hardware and engineering systems, thereby significantly propelling the continuous evolution of unmanned and high-speed operational capabilities within intelligent laboratories.

This technological paradigm shift fundamentally drives the democratization of scientific discovery. By leveraging artificial intelligence to codify complex domain expertise and automate intricate experimental workflows, autonomous laboratory platforms effectively lower the barriers to advanced research. Trial-and-error processes previously reliant on scarce senior talent are transformed into standardized, data-driven operations. This enables a broader range of enterprises and institutions to bypass the constraints of specialized human experience and conduct high-level research and quality control.

Consequently, these systems do more than merely replace repetitive manual labor; they liberate the core creativity and productivity of scientists. This profound transformation promotes greater inclusivity and equity in scientific and industrial innovation, ultimately driving structural growth and shaping the development trajectories of diverse global economies.

Growth in Demand for Full-Chain Solutions

Against the backdrop of technological advancements and booming downstream market demand, the intelligent laboratory industry's value chain is undergoing a structural upgrade. The industry is evolving from providing fragmented equipment and single-point solutions to delivering highly integrated full-chain solutions. The solution leverages digital design to facilitate high-precision, large-scale modular production, while simultaneously deploying and training continuously evolving industry-specific AI models to accurately capture the research pathways and trial-and-error patterns unique to the field. By integrating the data links between underlying hardware, automated execution systems, and top-level algorithms, the platform establishes a comprehensive intelligent command center. This center deeply engages in and optimizes the development process for new materials and formulations, substantively driving the implementation of the AI for Science paradigm at the application level. This model not only ensures strict delivery certainty and system stability for highly customized research environments but also significantly lowers the entry barriers and shortens the time-to-value for clients, thereby accelerating the large-scale commercialization of autonomous scientific infrastructure.

Competitive Landscape Analysis of Intelligent Laboratory Solutions Industry

The competitive landscape of China's intelligent laboratory solutions market remains relatively fragmented, with the top five providers collectively accounting for approximately 26.5% of the market in 2025. Among them, the Company ranked second among intelligent laboratory solutions providers in China, with revenue of approximately RMB645 million and a market share of approximately 6.0%. At the same time, among intelligent laboratory solutions providers headquartered in China, the Company ranked first by revenue. In addition, leveraging its cutting-edge technological capabilities, the Company has established a significant competitive advantage in the self-driving laboratory solutions segment. In 2025, by revenue, the Company ranked first in China's self-driving laboratory solutions providers, with a market share of approximately 34.2%.

Top 5 Intelligent Laboratory Solutions Providers, by Revenue in China, 2025

Ranking	**Company**	**Headquarters**	**Revenue** *(RMB Million)*	**Market Share** *(%)*
1	Company A(1)	United States	700	6.5%
2	**The Group**	**China**	**645**	**6.0%**
3	Company B(2)	United States	550	5.1%
4	Company C(3)	United States	500	4.7%
5	Company D(4)	Switzerland	450	4.2%
	Top 5		**2,845**	**26.5%**
	Total		**10,700**	

Source: Annual Reports of Listed Companies, Frost & Sullivan

Top 5 Self-Driving Laboratory Solutions Providers, by Revenue in China, 2025

Ranking	**Company**	**Revenue** *(RMB Million)*	**Market Share** *(%)*
1	**The Group**	**171**	**34.2%**
2	Company E(5)	50	10.0%
3	Company F(6)	30	6.0%
4	Company G(7)	25	5.0%
5	Company H(8)	20	4.0%
	Top 5	**296**	**59.2%**
	Total	**500**	

Source: Annual Reports of Listed Companies, Frost & Sullivan

(1) Company A, established in 1999 and headquartered in the United States, is listed on the New York Stock Exchange. The company is primarily engaged in the design, development, and provision of analytical instruments, software, services, and consumables covering the full laboratory workflow, with operations spanning life sciences, diagnostics, and applied chemistry.

(2) Company B, established in 1947 and headquartered in the United States, is listed on the New York Stock Exchange. The company primarily provides comprehensive intelligent laboratory solutions in the life sciences sector, focusing on laboratory high-throughput screening, imaging automation, and integrated digital detection systems.

(3) Company C, established in 1984 and headquartered in the United States, is listed on the New York Stock Exchange. The company primarily designs and manufactures high-precision analytical systems and automated hardware and software for intelligent laboratories by integrating automated liquid handling, high-throughput detection, and laboratory information management systems.

(4) Company D, established in 1980 and headquartered in Switzerland, is listed on the Swiss Stock Exchange. The company primarily engages in the development, production, and sale of laboratory automation workflow solutions and related instruments, serving sectors including biopharmaceuticals, forensics, and clinical diagnostics.

(5) Company E, established in 2015 and headquartered in China, is listed on the Hong Kong Stock Exchange. The company primarily provides intelligent laboratory R&D solutions and closed-loop laboratory data platforms for the global and domestic pharmaceutical and materials science industries.

(6) Company F, established in 2016 and headquartered in China, is listed on the Shanghai Stock Exchange. The company focuses on the life sciences and biotechnology fields, primarily providing products such as gene sequencing instruments and laboratory automation-related equipment, reagents, and consumables.

(7) Company G, established in 2002 and headquartered in China, is listed on the Shenzhen Stock Exchange. The company focuses on intelligent environment, intelligent industry, intelligent laboratory, and life sciences, providing products and services such as analytical instruments, reagents and consumables, and information software.

(8) Company H was established in 2018 and is headquartered in China. The company primarily provides intelligent laboratory solutions, covering areas of environmental testing, food safety, pharmaceutical analysis, life sciences, and new energy materials.

ENTRY BARRIER ANALYSIS

The global intelligent laboratory solutions industry is characterized by exceptionally high barriers to entry, which are primarily reflected in industry cognition, technological capabilities, full-chain services, and customer resources. In terms of industry cognition, the core processes of experiment-intensive fields such as chemicals and new materials are typically considered highly sensitive commercial secrets and are difficult to obtain through public channels. Leading enterprises have structured customers' implicit process knowledge and embedded it into intelligent workflows through long-term project practices and in-depth collaboration, forming an irreplicable cognitive advantage. In terms of technological capabilities, the stable operation of intelligent laboratory solutions, particularly self-driving laboratory solutions, depends on the deep integration and coordination of industry-specific AI models, high-quality data platforms, intelligent environmental systems, and embodied intelligent equipment. Meanwhile, leading enterprises have built solid laboratory data moats based on such collaborative systems. In terms of full-chain services, projects typically encompass multiple highly interdependent and tightly integrated stages, including the understanding of experimental processes, system design, intelligent environment construction, development of AI models and software platforms, integration of intelligent laboratory solutions, as well as long-term operation and maintenance management. Only a handful of enterprises in the industry own interdisciplinary integration capabilities and "turnkey" delivery capacity. In terms of customer resources, leading players have built benchmark cases in the industry with high project delivery quality and reliable product stability, and gradually established a solid trust closed loop with clients. By contrast, new entrants have obvious deficiencies in industry cognition accumulation, system engineering capabilities and customer trust, making it difficult to compete with mature top-tier enterprises in the short term.

RAW MATERIAL PRICE ANALYSIS

The primary raw materials for intelligent laboratory solutions include electronic components and aluminum alloy. Electronic components are critical constituents of automated equipment, perception and monitoring units, and intelligent control systems. Aluminum alloy, with its lightweight nature, good rigidity, and corrosion resistance, is commonly used in the manufacturing of robotic arms. Over the past five years, China's producer price index for electronic components has remained generally stable, fluctuating slightly from 100.7 in 2021 to 98.9 in 2025. The price of aluminum alloy rose slightly from RMB20,211 per ton in 2021 to RMB21,172 per ton in 2025, maintaining an overall stable trend. Consequently, the overall price fluctuations of these upstream raw materials exert a limited impact on the cost structure and profitability of enterprises within the industry.

SOURCE OF INFORMATION

We commissioned Frost & Sullivan to conduct market research on global intelligent laboratory solution industry and prepare the F&S Report. Frost & Sullivan is an independent global consulting firm founded in 1961 in New York that offers industry research and market strategies. We have contracted to pay RMB550,000 to Frost & Sullivan for compiling the F&S Report.

In preparing the F&S Report, Frost & Sullivan conducted detailed primary research which involved discussing the status of the industry with certain leading industry participants and conducting interviews with relevant parties. Frost & Sullivan also conducted secondary research which involved reviewing company reports, independent research reports and data based on its own research database. Frost & Sullivan obtained the figures for the estimated total market size from historical data analysis plotted against macroeconomic data as well as considered the above-mentioned industry key drivers. Its market engineering forecasting methodology integrates several forecasting techniques with the market engineering measurement-based system and relies on the expertise of the analyst team in integrating the critical market elements investigated during the research phase of the project. These elements primarily include expert-opinion forecasting methodology, integration of market drivers and restraints, integration with the market challenges, integration of the market engineering measurement trends and integration of econometric variables.

The F&S Report is compiled based on the following assumptions: (1) the social, economic and political environment of the globe and mainland China is likely to remain stable in the forecast period; and (2) related industry key drivers are likely to drive the market in the forecast period.