SESEC V Translation

Translation of Annual Report on Standardization Development in China (2023)

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Seconded **E**uropean **S**tandardization **E**xpert in **C**hina
(SESEC)

Introduction

In March, Standardization Administration of China (SAC) published the Annual Report on Standardization Development of China (2023), which gives an overview of China's standardization work last year including the analysis of key data and how standards advance technologies and promote social and economic development. It also clarifies the role of standards in promoting equipment renewal, expanding high-level opening up, and stabilizing the industrial chain in the near future.

DISCLAIMER: This translation is produced by ***China Standardization Press*** and may be used only for reference purposes. This English version is not an official translation of the original Chinese document. In cases where any differences occur between the English version and the original Chinese version, the Chinese version shall prevail which can be found here. SESEC shall accept no responsibility or liability for damage or loss caused by any error, inaccuracy, or misunderstanding with regard to this translation.

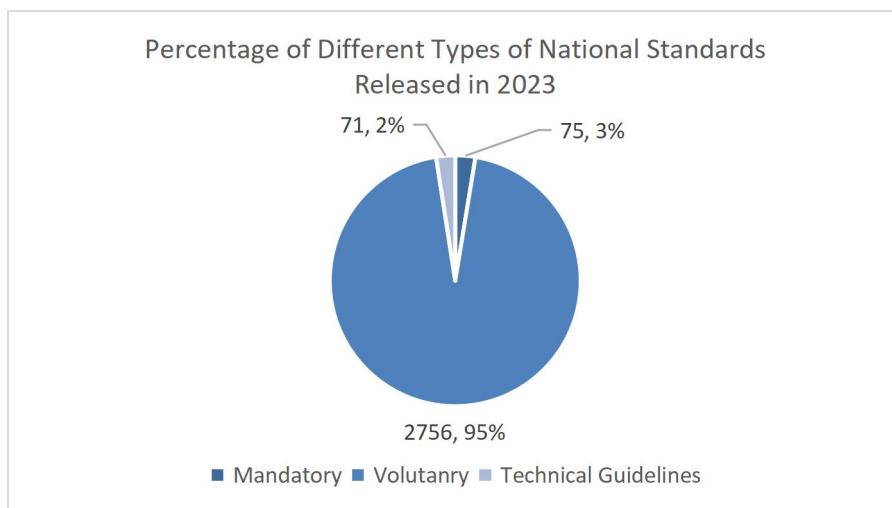# Annual Report on Standardization Development in China (2023)

Standards are a key part of the internationally recognized National Quality Infrastructure (NQI) and the world's common language, which are also important innovative resources. In 2023, all regions and government departments have earnestly implemented the revised Standardization Law of China and the National Standardization Development Outline, and actively used high standards as a tool to boost high-tech innovation, promote high-quality industrial development and highlevel opening up, realize high-efficient governance and shape a high-quality life for the people, making remarkable achievements.

The report is composed of three parts. Part one is the overview of data, covering the aspects such as the five types of standards (national, sectoral, local, association and enterprise standards), standardization technical bodies, pilot and demonstration projects, the special project on standards comparison and compliance, the statistical survey on standards implementation, and international standardization. Part two focuses on the six standardization priorities, and summarizes the roles of standards in advancing high-tech innovation, promoting industrial development, shaping a high-quality life, driving high-level opening up, facilitating the governance of local areas, and consolidating the foundation of development. Part three is the outlook of standardization development, which clarifies that standards will play a big role in unleashing the production capacity, expanding opening up, and stabilizing the industrial chain, to write a new chapter for standardization development, and contribute to economic upturn and social prosperity.

I. Overview of Standardization Statistics

1. National standards

In 2023, SAC approved and released 2,902 national standards. According to the nature of the standards, there were 75 mandatory standards, 2,756 voluntary standards, and 71 guiding technical documents. In terms of standards development and revision, 1,708 were newly developed national standards and 1,194 were revised ones. A total of 225 national standard reference materials were approved and released. By the end of 2023, there were altogether 44,499 national standards, including 2,064 mandatory standards, 41,844 voluntary standards, and 591 guiding technical documents; there were 4,164 national standard reference materials.

Percentage of Different Types of National Standards Released in 2023

71, 2%   75, 3%

2756, 95%

■ Mandatory ■ Volutanry ■ Technical Guidelines

2. Sector standards

In 2023, 4,141 sectoral standards were filed. By the end of 2023, 75 categories of sectoral standards were approved, with 80,828 sectoral standards filed.

3. Local standards

In 2023, 10,751 local standards were filed. By the end of 2023, 69,709 local standards were filed.

4. Association standards

In 2023, social organizations published 23,162 association standards on the national platform for association standards information. By the end of 2023, social organizations had cumulatively published 74,240 association standards on the platform.
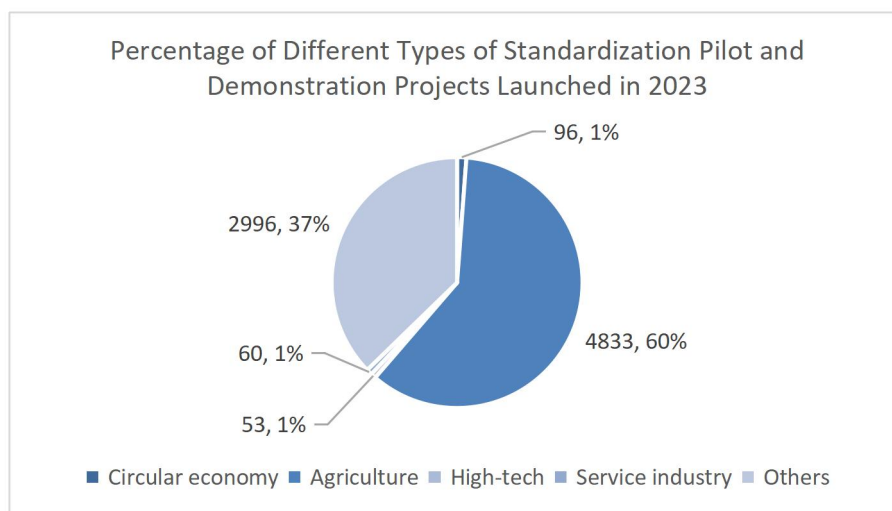
5. Enterprise standards

In 2023, enterprises declared 546,160 standards through the public service platform for enterprise standards information, covering 932,124 products. By the end of 2023, 472,459 enterprises had declared 3,165,625 standards through the platform, covering 5,271,353 products.

6. Standardization technical bodies

In 2023, 23 national standardization technical bodies were established, including 5 technical committees (TCs), 12 technical subcommittees (SCs), and 6 standardization working groups (SWGs). By the end of 2023, there were a total of 1,338 national standardization technical bodies, including 550 TCs, 766 SCs, and 22 SWGs.

7. Standardization pilot and demonstration projects

In 2023, various regions carried out 310 national standardization pilot and demonstration projects. By the end of 2023, various regions had cumulatively carried out 8,038 national standardization pilot and demonstration projects, including 96 national standardization pilot and demonstration projects on circular economy, 4,833 projects on agriculture, 53 on high-tech, and 60 on service industry.

Percentage of Different Types of Standardization Pilot and Demonstration Projects Launched in 2023

8. The special project on standards comparison and compliance

In 2023, 7,055 enterprises were newly involved in the special project on standards comparison and compliance, with 169 new standards comparison schemes published and 12,844 new standards comparison results published. By the end of 2023, 58,559 enterprises from 238 cities of 30 provinces (autonomous regions, municipalities) had participated in the special project, publishing 4,120 standards comparison schemes, and 126,593 standards comparison results.

9. The statistical survey on standards implementation

The first statistical survey on national standards implementation data was conducted. Through the comprehensive analysis of six indicators including consultation volume, download volume, sales volume, citation volume, enterprise implementation volume, and detected application volume of standards, it was concluded that 5,784 national standards were "strongly" implemented in China, accounting for 13.1% of the total; 35,583 national standards were "moderately" implemented, accounting for 80.6% of the total; 2,772 ones were "weakly" implemented, accounting for 6.3%. The "strongly" and "moderately" implemented standards were effective implemented standards, making the effective implementation rate of national standards reach 93.7%.

10. International standardization

In 2023, 9 Chinese experts newly served as the chair or vice chair of ISO and IEC technical bodies, and another 7 secretariats were held by China. A total of 1,311 experts became new ISO or IEC registered experts, and China submitted 244 international standard proposals to ISO and IEC. A total of 398 foreign language versions of national standards were approved and released. Eighty-four mandatory national standards were notified to the WTO, and 8 new domestic technical counterparts to international standardization organizations (ISO and IEC) were established.

II. Standardization Priorities

Standards promoted high-tech innovation more vigorously.

Firstly, the interaction between standards and technologies continued to strengthen. In the NQI major project in the 14th Five-Year Plan period (2021-2025), the "internationalization of standards" project was established to support the standards development in fields such as new power systems, smart robots, nanomaterials, Internet of Things (IoT), and new infrastructure with technological innovation. Centered on the areas such as rare earth materials, high-tech ships and marine equipment, and core aerospace components, the first batch of 38 national standards verification sites were approved, and a senior expert pool of nearly 500 experts was established, which covered the areas such as macro strategies, standardization, measurement testing, inspection, scientific research, and industrial applications. Thirty-four national technical standards innovation bases were established, among which those on intelligent manufacturing, photovoltaics, and household appliances contributed to the conversion of 1,924 advanced technological achievements with application potential into 2,245 technical standards.

Secondly, the supply of standards in key technology areas continued to increase, with the proportion of standards for strategic emerging industries reaching about 40%. Breakthroughs were made in the development of 7 BeiDou satellite navigation standards and 14 space science standards in key areas such as BeiDou navigation and manned spaceflight, promoting the development of more than 100 BeiDou application standards. Over 200 national standards were developed in key and emerging technology fields such as integrated circuits, clean energy, and biotechnology. A total of 4,141 sectoral standards were filed, of which 1,902 were related to the strategic emerging industry, accounting for 45.9%. And 23,162 association standards were published, of which 11,644 were related to the strategic emerging industry, accounting for 50.3%. And 546,160 enterprise standards were declared, of which 210,508 were related to the strategic emerging industry, accounting for 38.5%.

Thirdly, the leading role of advanced standards continued to strengthen, with nearly 1,400 standards recognized as forerunner standards. In 2023, 1,399 standards of 947 companies became forerunner standards. Among the 640 standards in the product field, standards in the electrical machinery and equipment manufacturing industry accounted for nearly 20%, and standards in general equipment manufacturing and professional equipment manufacturing accounted for 12% and 10% respectively. There were 53 forerunner standards in the service industry, with logistics services standards accounting for 14% and solid waste management services standards accounting for 8%. As of the end of 2023, 3,631 standards of 2,003 companies had become forerunner standards, covering 893 types of products and services.

Standards facilitated high-quality industrial development more effectively.

Firstly, the standards system of the agricultural and rural areas became more robust, with the total number of national standards exceeding 4,000. The G*uidelines for Advancing the Construction of the Standards System for the Utilization of Livestock and Poultry Manure Resources and the Action Plan for Rural Revitalization Standardization* were issued, fully leveraging standardization to support rural revitalization. A total of 169 national standards were released, including 165 ones related to the quality and safety of agricultural products and agricultural inputs, agricultural infrastructure construction, agricultural product quality grading, prevention and control of animal and plant diseases, utilization of agricultural waste, improvement and utilization of saline-alkali land, agricultural social services, and wetland protection, and 4 national standards were issued in rural areas. Three national agricultural standardization demonstration zones were established. By the end of 2023, in the agricultural and rural areas, the total number of national standards exceeded 4,000, the total number of filed sectoral standards reached 4,721, and the total number of published association standards reached 12,293.

Secondly, standards in the industrial sector more focused on key technologies and emerging fields, with the total

number of national standards reaching over 35,000. In the area of modern industrial system building, 126 industrial foundation standards, 41 high-end equipment manufacturing standards, and 50 aerospace standards were released. A total of 38 standards were issued in industries such as additive manufacturing and hydrogen energy, and key standards were issued to address the demands of national copper and aluminium supply chains such as reclaimed cooper materials, helping improve the resilience and safety of industrial chains. By the end of 2023, in the industrial sector, the total number of national standards reached 35,851, the total number of filed sectoral standards was 25,871, the total number of published association standards reached 36,434, and the total number of self-declared and implemented enterprise standards on the public service platform for enterprise standards information reached 1,692,235.

Thirdly, standards coverage in the service industry was more comprehensive, with the total number of national standards reaching over 3,800. Twenty-one national standards were released in the field of logistics, such as international road freight hubs, port logistics, multimodal transport, agricultural production area cold chain logistics, immediate delivery, and reverse logistics, to promote safe, green, and efficient logistics transportation. Six e-commerce-related standards and 35 data security-related standards were released to support the healthy development of the platform economy. Eighteen national standards in the financial field, such as information disclosure and consumer complaints, were issued to help the financial industry strengthen comprehensive regulation and prevent and resolve financial risks. In the service industry, 308 new national standards were released in the service industry, accounting for 10.6% of the total; 5,334 new association standards were released, accounting for 23% of the total; and 140 new national service standardization pilot projects were established, along with 10 new national service standardization demonstration projects. By the end of 2023, in the service industry, the total number of national standards reached 3,821, the total number of filed sectoral standards was 10,803, the total number of association standards reached 16,466, and the total number of self-declared and implemented enterprise standards on the public service platform for enterprise standards information reached 50,215.

Standards shaped a higher-quality life with more tangible effects.
Firstly, public service standardization became more grounded, enhancing the people's sense of gain, happiness, and security. Eighteen national departments jointly issued the Work Plan for the Construction of the Basic Public Service Standards System. Twelve ice and snow sports standards, such as *GB/T 42378-2023, Basic vocabulary of for popular snow sports*, and *GB/T 42369-2023, Specifications for grading and evaluation of popular racing skating sport level, supported the vigorous development of mass sports activities*. The standardization action of elderly care and housekeeping services was implemented, with 39 special plans for elderly-oriented renovation standards issued and 7 standards related to elderly care services developed to safeguard the interests of special groups. Fifty standards related to health and hygiene, such as testing methods for drinking water, clinical Chinese medicine and medical devices, were developed to safeguard public health.

Secondly, social governance standardization became more precise, improving the urban and rural governance and public safety levels. Twenty-four national standards were released for grassroots government transparency, office affairs management, court science, and social credit. A total of 157 social management and public service comprehensive standardization pilot projects were promoted in areas such as judicial administration, health care, and medical insurance. One hundred and twenty-nine safety production standards were developed, including *GB/T 42312-2023, Guide for production safety emergency response plan of electrochemical energy storage station*. Eight standards in transportation safety were released, covering ship life-saving equipment and civilian unmanned aerial vehicles, and seven mandatory national standard projects were approved, including the ones about gas appliance for commercial use, and rubber composite hose for connecting gas appliances, effectively supporting the prevention and resolution of major safety risks.

Thirdly, the standardization of green development became more efficient, strongly supporting hot issues such as combating food waste and restricting excessive packaging. Eleven national departments jointly issued the *Guidelines for the Construction of the Carbon Peak and Carbon Neutrality Standards System*, establishing a blueprint of dual-carbon standards system building to serve the national dual-carbon strategy. Eleven relevant national standards were issued, including standards for carbon capture, energy consumption quotas, water intake quotas, marine ecological restoration, and small and micro wetland protection, and the development of carbon emission accounting and reporting standards for key industries such as steel, building materials and constructing were promoted to boost green development via standardization. Five national standards, including

GB/T 42966-2023, General rules for management of anti-food waste in catering, were released, and three national standard projects for tourism buffets and exhibitions were approved. A mandatory national standard for limiting excessive packaging of fresh edible agricultural products was issued, a plan for mandatory national standards for limiting excessive packaging of express delivery was initiated, and the modification of standards for limiting excessive packaging of tea was accelerated. More than 40 social organizations in food and catering sectors published more than 60 associations standards for saving food and cutting loss, and preventing waste in catering, such as *Assessment requirements for forerunner standard — Kitchen waste treating and utilizing equipment in catering services and Technical specification for rice moderate processing*.

Fourthly, the implementation of standards in the consumer goods sector was steadily improved, effectively promoting consumption growth. Two hundred and forty-one standards were developed in key consumer goods sectors such as infant and child products, household appliances, and cosmetics to strengthen the quality and safety of consumer goods. The number of products using globally uniform identification standards increased by 19.2% to 19.64 million types, covering over 190 million consumer goods. Among them, products related to motor vehicles, household or office furniture and furnishings, and personal accessories increased by 120.0%, 66.8%, and 51.1% respectively. Electrical appliances, kitchenware, and tableware increased by 47.5% and 47.1% respectively, and food/beverages and tobacco, beauty/personal care, and hygiene products increased by 36.1% and 33.7% respectively, effectively promoting the smooth flow of consumer goods in China.

Standards drove high-level opening up more orderly.
Firstly, the consistency of Chinese standards and foreign standards continued to increase, with the overall conversion rate of international standards reaching 82%. In 2023, 999 international standards were converted into national standards, the consistency degree of major consumer goods with international standards was 96%, and the conversion rate of international standards in areas such as key equipment manufacturing and new-generation information technology surpassed 90%. The data comparison between national standardization technical committees and domestic counterparts of international standards organizations was conducted to ensure the correspondence between the 380 technical bodies of international standards organizations and national technical committees, with the corresponding degree exceeding 90%.

Secondly, the capability of participating in international standardization activities continued to improve, with the submission of 244 proposals of international standards. In 2023, in international standards organizations, another 7 secretariats in mechanical energy storage, innovative logistics and other areas were held by China, 9 Chinese experts newly assumed the chair or vice chair, and 1,311 Chinese experts became new registered experts. China's participation degree in international standards development reached 82.2%. The plans for publishing the foreign language versions of 480 voluntary national standards in areas including international trade, foreign contracted projects, international cooperation and exchanges on technologies, and carbon peak and neutrality were announced, and the foreign language versions of 398 national standards were published.

Thirdly, the level of international standardization cooperation continued to increase, with the signing of 5 new documents of international standardization cooperation. In 2023, SAC signed standardization cooperation agreements with national and regional standardization bodies such as Technical Regulation and Metrology Committee of the Ministry of Trade and Integration (CTRM) in Kazakhstan and the African Electrotechnical Standardization Committee (AFSEC), and signed an agreement on the mutual recognition of standards for animal and vegetable fats and oil with the Russian counterpart. By the end of 2023, China had signed 108 documents on bilateral and multilateral standardization cooperation with 65 national and regional standardization bodies and international organizations, including 57 cooperation documents with 47 countries involved in the Belt and Road Initiative. Representatives from enterprises including foreign-funded enterprises were widely accepted in the work of domestic technical committees. In 2023, 7,409 registered members were added in domestic technical committees, 400 of whom were from foreign-funded enterprises, accounting for 5.4%.

Standards facilitated the governance of local areas more effectively.
Firstly, the vitality degree of market-oriented standards in developed regions was higher, especially in Guangdong province, Zhejiang province, Shandong province, Jiangsu province, Beijing municipality and Shanghai municipality. In 2023, 1,387 social organizations were added on the national platform for association standards information, among which 205 were from Guangdong, 102 from Zhejiang, 96 from Shandong, and 73 from

Jiangsu. Five regions including Guangdong, Zhejiang, Shandong, Shanghai and Beijing ranked the top 5 in the aspect of the published number of association standards, 2,485, 1,510, 1,255, 889 and 818 respectively. In the top 5 regions with a large number of enterprise that declared standards on the public service platform for enterprise standards information, there were 4 developed regions including Guangdong, Shandong, Zhejiang and Jiangsu, with 7,679, 7,174, 6,108 and 4,227 enterprises respectively declaring standards. Guangdong, Zhejiang, Shandong, Jiangsu and Beijing ranked the top 5 in terms of the number of forerunner enterprise standards, which was 1,152, 384, 380, 259 and 252 respectively.

Secondly, the standardization capability in central and western regions steadily increased, with great efforts made by Hebei province, Hubei province, Hunan province, Anhui province, Sichuan province, Inner Mongolia autonomous region and other regions. In 2023, Hebei had the largest number of enterprises (14,489) that declared standards on the public service platform for enterprise standards information. In the top 10 provinces/autonomous regions with a large number of declared enterprise standards in strategic emerging industries, half of them were from the central and western regions, including Hebei (24,163 standards), Henan (23,309 standards), Sichuan (9,242 standards), Anhui (8,051 standards) and Hubei (7,048 standards). In the top 10 provinces/autonomous regions with the most enterprises participating in the special project for standards comparison and compliance, 65.1% of the enterprises were from the central and western regions, including 1,210 enterprises from Xinjiang Uygur autonomous region, 1,171 from Hunan, 788 from Hubei, 394 from Hebei, 254 from Inner Mongolia, 158 from Anhui, and 146 from Jiangxi. In the top 10 provinces/autonomous regions with the most enterprises unveiling standards comparison results, 62.8% of the standards comparison results were from the central and western regions, including 2,447 results from Hunan, 1,638 from Xinjiang, 1,086 from Hebei, 907 from Hubei, 372 from Inner Mongolia, and 254 from Jiangxi. Xianning city of Hubei province carried out the urban standardization comprehensive pilot projects (natural ecological park), and Chengdu city of Sichuan province held the sub-forum on park city standardization, which were the highlights of standardization work.

Thirdly, the standardization regional coordination was further strengthened, with highlights in the Yangtze River Delta region, Guangdong-Hong Kong-Macao Greater Bay Area (GBA), BeijingTianjin-Hebei region, Yangtze River Economic Belt, and nine provinces/autonomous regions along the Yellow River. The Yangtze River Delta region, composed of Shanghai municipality and major cities in Jiangsu, Zhejiang and Anhui provinces, focused on the goals and tasks of regional integrated development plan, made concerted efforts to develop 36 harmonized local standards of the regional including emission standard of air pollutants for pharmaceutical industry in key areas such as digital government, culture and tourism, public transport, health, agriculture and rural areas, and ecological environment. The Beijing-Tianjin-Hebei region established a "3+X" collaboration model, through which the standardization departments and industrial competent departments in the three areas developed 86 harmonized local standards of the region in multiple fields such as transport, health, ecological environment, safe production, market regulation, commerce, human resources, culture and tourism, and engineering construction. The second joint meeting on ecological civilization standardization cooperation of the Yangtze River Economic Belt was held, where the Guidelines on Establishing Harmonized Local Standards System of the Region for the Ecological Civilization of the Yangtze River Economic Belt and two regional shared standards for ecological protection were released. A standardization conference was held to sign the framework agreement on the strategic cooperation mechanism for the ecological protection and high-quality development of the Yellow River basin in nine provinces/autonomous regions along the Yellow River. Guangdong, Hong Kong and Macao signed a MoU on promoting the standards development in GBA, and released 161 GBA standards covering food, traditional Chinese medicine, transport and elderly care. At the event, nearly 900 enterprises in the area declared to use the GBA standards. Fujian province applied more cross-Strait common standards, and created 38 pilot projects for cross-Strait common standards.

The foundation of standardization development became more solid.
Firstly, the standardization system building was raised to a new level, with the release of the regulations for standards innovation-oriented enterprises for the first time. The *Interim Provisions for Adopting Association Standards in Voluntary National Standards, Administrative Measures for Laddered Cultivation of Standards Innovationoriented Enterprises (Trial)*, and *Measures for Promoting Enterprise Standardization* were issued to push forward the development of market-oriented standards. The *Guidelines for Statistical Analysis of Mandatory National Standards Implementation* was released to constantly improve the unified and coordinated mandatory national standards system. The *Administrative Measures for Sectoral Standards* was revised to

integrate the sectoral standards in areas of spaceflight, aviation, shipping, electronics, weaponry and nuclear power into national defense sectoral standards.

Secondly, new progress was made in standardization theoretical research, with standards outcomes on government services included in typical research outcomes of themed education in the General Office of the State Council in 2023. In terms of supporting the General Office of the State Council to develop a series of national standards on government services, related standards outcomes were included in the list of typical research outcomes of themed education in the General Office of the State Council in 2023, effectively improving the standardization level of administrative management and government services. Working with Chinese Academy of Engineering, SAC carried out the research on several key issues in implementing the National Standardization Development Outline to make in-depth discussions on the standardization path of association standards in key areas such as supporting high-quality development, and ensuring energy security standardization, standardization of environmental and social governance, and institutional opening up of standards, which provided high-level advisory opinions for implementing the Outline.

Thirdly, standardization talent education was brought to a new level, with the formulation of documents on standardization talent cultivation for the first time. SAC, together with Ministry of Education, Ministry of Science and Technology, Ministry of Human Resources and Social Security, and All-China Federation of Industry and Commerce, released and implemented the *Special Action Plan for Standardization Talent Cultivation (2023-2025)*. A total of 17 colleges, universities and vocational colleges set up majors such as standardization engineering and standardization technologies, and more than 40 colleges and universities carried out the talent training for applying standardization technologies such as article numbering and automatic identification. Over 4,600 people were awarded the occupational skill certificates for standardization editing, and textbooks such as *Standardization Fundamentals* were included in the booklist of the first batch of national planned textbooks for vocational education in the 14th Five-Year Plan period (2021-2025). In 2023, 34 Chinese experts won the ISO Excellence Award, and 21 Chinese experts received the IEC 1906 Award. The Chinese student teams won the Gold Award, Silver Award and IEC Special Award in the 18th International Standards Olympiad.

Fourthly, standardization technical support capability was further enhanced, with the approval and establishment of the first batch of national standards verification points. To meet the standardization development demands in national key strategies, projects and industries and emerging industries, 38 national standards verification points were approved and established to focus on 5 areas such as new-generation information technology, new material, high-end equipment and intelligent manufacturing, new energy resources and new-energy vehicle, and environmental protection and low carbon as well as comprehensive verification demands. Eight national technical standards innovation bases were approved and established, covering the areas such as non-ferrous metals, chemical new materials, medical devices, and civil aviation. China ASEAN Standardization Cooperation and Exchange Center was founded by SAC together with Guangxi Zhuang autonomous region to exert the role of regional standardization research center for America, Europe, Northeast Asia and other areas, and facilitate the international cooperation and exchanges on standardization. In 2023, 16 advanced technical committees were commended, 17 unqualified technical committees were required for rectification, and 123 technical committees were assessed to strengthen the dynamic management of technical committees. In the year, 37 first-class and 44 unqualified domestic counterparts of international technical committees were given commendation and rectification instructions respectively, and the evaluation of 362 domestic counterparts were initiated to better guide international standardization work. By the end of 2023, there were 19 departments registering and managing 188 million unified social credit identifiers of corporates and other organizations, providing data query services for nearly 1.8 billion times. The article numbering application had covered 41 major categories according to Global Product Classification (GPC), with nearly 190 million pieces of commodity data.

Fifthly, standardization statistical survey stepped into a new phase, with the national statistical survey for standards implementation data carried out for the first time. The survey investigated and collected more than 830,000 pieces of national standards implementation data, covering more than 44,000 currently effective national standards that had been implemented for nearly 81.5 million times. The results indicated that the effective national standards implementation rate was 93.7%. The platform for statistical analysis information of implementation was established, and 13 related departments of the State Council carried out the statistical analysis of mandatory national standards implementation.

Sixthly, new progress was made in standardization publicity with the first China Standardization Conference held. The first China Standardization Conference was successfully held in Nanjing city of Jiangsu, which brought a new model of standardization publicity geared to international practices. During the theme activity for World Standards Day 2023 in Liuzhou city of Guangxi, departments across the country carried out publicity activities with the theme of "Standards shape good life". The list of the first batch of enterprises establishing standardization demonstration projects on high-quality agricultural development was unveiled, and the forerunners of the association standards of All-China Federation of Commerce and Industry and the first batch of private enterprise standards in 2023 were released. Activities such as the first Forum on Standardization Development of Chinese Nuclear Industry, activity focusing on "Standards benefit enterprises", the National Defense Industry Standards Innovation Competition, and the first ISO Standardization Youth Star Competition were carried out, creating a good atmosphere of valuing and using standards in the whole society. The publicity means of standards had changed from paper carrier to visualized, media-integrated and comprehensive data services, and the efforts on raising the public's awareness of standards copyright protection and network-based communication protection also increased.

III. Outlook of standardization development

In the next step, SAMR (SAC) will work with all regions and government departments, take the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era as guidelines, thoroughly implement the *National Standardization Development Outline*, fully exert the important role of standards in unleashing high-quality production capacity, expanding opening up, and supporting stable industrial chains, and strive to break new ground of standardization development, so as make contributions to the economic upturn as well as social stability and prosperity.

Firstly, exert the leading role of standards in promoting large-scale equipment renewal and consumer goods trade-in programs. Efforts will be made to improve a batch of standards on technologies, energy consumption and emission combined with the actual situation, strengthen the standards development in key and emerging technological areas to shut down outdated production facilities, and further improve the standards of consumer goods such as vehicles and household appliances, in order to better meet people's demands for a better life.

Secondly, exert the supporting role of standards in expanding high-level opening up. Efforts will be made to steadily expand the institutional opening up of standards, support foreign-funded enterprises to participate in standards development in accordance with the law on an equal footing, actively participate in international standardization activities, and continuously contribute more Chinese proposals and wisdom.

Thirdly, exert the fundamental role of standards in supporting stable industrial chains. Efforts will be made to focus on key industrial chains in areas such as industrial robots, large-scale application of BeiDou Navigation Satellite System, implement a number of landmark projects on stabilizing industrial chains through standards, accelerate technical standards development in key phases, further promote the transformation of independent R&D and independent technologies towards independent standards, and constantly improve national standards systems, so as to practically bolster the resilience and competitiveness of industrial and supply chains in China.

Introduction of SESEC Project

The Seconded European Standardization Expert in China (SESEC) is a visibility project co-financed by the European Commission (EC), the European Free Trade Association (EFTA) secretariat and the three European Standardization Organizations (CEN, CENELEC and ETSI). Since 2006, there has been four SESEC projects in China, SESEC I (2006-2009). SESEC II (2009- 2012), SESEC III (2014-2017), SESEC IV (2018- 2022) and SESEC V (2022-2025). Dr. Betty XU is nominated as the SESEC expert and will spend the next 36 months on promoting EU-China standardization information exchange and EU-China standardization cooperation.

The SESEC project supports the strategic objectives of the European Union, EFTA and the European Standardization Organizations (ESOs). The purpose of SESEC project is to:

- **Promote European and international standards in China;**

- **Improve contacts with different levels of the Chinese administration, industry and standardization bodies;**
- **Improve the visibility and understanding of the European Standardization System (ESS) in China;**
- **Gather regulatory and standardization intelligence.**

The following areas have been identified as sectoral project priorities by the SESEC project partners: Internet of Things (IoT) & Machine-to-Machine(M2M) communication, communication networks & services, cybersecurity & digital identity, Smart Cities (including transport, power grids & metering), electrical & electronic products, general product safety, medical devices, cosmetics, energy management & environmental protection (including eco-design & labeling, as well as environmental performance of buildings).