中国标准化（英文版）

CHINA STANDARDIZATION

MAR./APR. VOLUME 108
BIMONTHLY
2021 NO.2
ISSN 1672-5700/CN11-5133/T

LOOK BACK
PAIN & GAIN

2020中国标准化
热点评议

Report on the Development of Enterprise Standard Forerunner

企业标准“领跑者”发展报告

CSP
CHINA STANDARDIZATION PRESS

中国标准化（英文版）
CHINA
STANDARDIZATION

MAR./APR. VOLUME 108
BIMONTHLY
2021
NO.2

ISSN 1672-5700/CN11-5133/T

COPYRIGHT

Address
Building No.51 Tiantong Zhongyuan,
Changping District, Beijing, China 102218
Website
www.cspress.com.cn

Editorial Department
Tel: +86 10 57711697 / 57711693
Fax: +86 10 57711660
E-mail: caoxx@cnis.ac.cn
Subscription & Advertisement
Tel: +86 10 57711666 / 57711663

Printing
Beijing Bohaisheng Printing Co., Ltd.
Legal Adviser
Zhao Xiaotian, Beijing Tianchi Juntai Law Firm
Tel: +86 10 61848131

For more information

Administrated by
State Administration for Market Regulation (SAMR)

Hosted by
China National Institute of Standardization (CNIS)
China Association for Standardization (CAS)

Published by
China Standardization Press Co., Ltd. (CSP)

Serial Number:
CN 11-5133/T ISSN 1672-5700
General Distributor:
Beijing Bureau of the Distribution of Newspapers and Magazines
Subscription:
Post offices across the nation
Postal Subscription Code: 80-136
Overseas Distributor: China International Book Trading Corporation
Distribution Number: BM5708
Publishing date: March 10, 2021
Advertisement Operation License:
Advertisement Registration No. 20190002,
Market Regulation Bureau of Changping District, Beijing, China

Price
Domestic: RMB ¥50.00
International: US $30.00

THE EDITORIAL COMMITTEE
OF CHINA STANDARDIZATION PRESS

CONTENTS

Looking back helps us learn how to look forward. China has experienced the subversive changes and challenges brought by the COVID-19 pandemic, so has the standardization field. However, the standardization reform has been smoothly carried out after social and economic orders got back on track.

The SPOTLIGHT column gives an overview of the most influential standardization events, figures and standards in China in 2020. For example, the *Administrative Measures for Mandatory National Standards* was released by SAMR in January and put into force in June 2020; SAC released the English versions of 13 national standards on pandemic prevention and control through a fast-track process; Zhang Xiaogang, former ISO president assumed Chair of the Standardization Work Committee of ACFIC; the Chinese team won the Gold Award and KEIT Award at the 15th International Standards Olympiad competition.

Remarkable progress has also been made in the enterprise standard forerunner (ESF) system since it was implemented in 2018. The Report on the Development of Enterprise Standard Forerunner, published by China National Institute of Standardization, was displayed in detail in SPECIAL REPORT column.

In the interview with Gao Jianzhong, Secretary-General of China Association for Standardization, he explains the connotation of enterprise's Good Standardization Practice (GSP) and the progress on the evaluation of GSP in China.

"The pilot program of GSP lasting for 16 years plays a critical role in improving the basic level of standardization and facilitating technological advancement and management in companies, thus improving their product quality," Gao stressed.

Qu Zongfeng, Vice President of China Household Electric Appliance Research Institute (CHEARI) shares his insights into how standards help boost the rapid growth of the industry in the interview.

In addition, Chinese expert Qiao Mingsheng, winner of IEC 1906 Award in 2020, tells his 22-year story with standardization that has brought great benefits to himself.

Find more interesting things in the March/April issue.

Looking back to better move forward

HEADLINE |

New National Technical Standard Innovation Base initiated

The construction of National Technical Standard Innovation Base (civil aviation) was initiated on February 25, marking another step forward in facilitating innovation outcomes to be converted into technical standards.

China Academy of Civil Aviation Science and Technology (CASTC) will lead the efforts in the construction of the Base, under the support of relevant innovation alliances. The mission of the Base is to serve the task of building China's strength in civil aviation and high-quality development, by promoting science and technology innovation, standards innovation and industrial innovation. It can coordinate resources up and down the industrial chain to promote the marketization, industrialization and internationalization of innovative products and technologies.

Thus, its top priorities include: establishing a coordination mechanism to integrate science and technology innovation, standards innovation and industrial innovation; creating a promotion mechanism for the marketization and industrialization of innovative products and technologies; building a platform for civil aviation standards innovation and public service; constructing an international standards cooperation and communication platform; and nurturing a professional team in standards.

Former ISO President Zhang Xiaogang, Honorary President of the Base, expressed high hopes for the Base to keep a global perspective, serve national strategies such as developing homemade large aircrafts, and establish a coordination mechanism for cross-sector, cross-regional and international development of technical standard innovation. He highlighted the importance for the Base to drive industrial growth and promote innovative development of aviation industrial chain.

The action for the construction of National Technical Standard Innovation Bases was launched in March 2016. A total of 47 such bases have been established so far.

Expert seminar on brain-computer interaction standards held

Brain science that explores brain mechanism has emerged as one of the frontier science areas, with the US, EU and Japan initiating national plan for advancing brain science research. It is also one of the 12 key areas crucial for science and technology innovation and industrial development listed in the Fourteenth Five-Year Plan of China.

ISO/IEC JTC 1 on information technology set up an advisory group for brain-computer interaction (AG 16) in November 2019, which was spearheaded by China and participated by experts from many countries such as the US, Japan and South Korea. China Electronics Standardization Institute (CESI) leads the AG 16 work.

Expert Seminar on Brain-Computer Interaction Standards held virtually on January 19, brought together experts from AG 16, leading universities, research institutes and enterprises to discuss the deployment of brain-computer interaction standardization in 2021. Yu Yuntao, deputy director from CESI and leader of AG 16, chaired the event. Zhou Ping, head of Information Technology Research Center under CESI, gave an opening address.

CESI planned to advance relevant work by starting with talent building, standards development and international exchanges. Experts expressed the willingness to take active part in formulating domestic and overseas study reports, developing terminology standards, and analyzing use cases, and reached consensus on the work plan for 2021.

SAMR and SAC release key national standards in many sectors

SAMR and SAC recently released a batch of key national standards, covering many sectors including consumer products, green sustainability, industrial manufacturing, healthcare and health protection, services, public credit and governmental affairs.

In terms of consumer products, the mandatory national standard on general requirements of sunglasses and sun glare filters, the first of its kind, is of great significance in safeguarding the health and safety of consumers, improving the quality of domestic products and promoting the sound development of the industry.

In terms of green sustainability, four national standards on green manufacturing help manufacturers establish the management system of green supply chain in an all-round way, inspire their initiative for green development and realize full-scale green upgrading of manufacturing industrial chain in China.

In terms of industrial manufacturing, three national standards on digital simulation in manufacturing process of mechanical products will effectively solve the bottleneck problem of enterprises in applying the technology, facilitate the popularity and application of the technology, drive the establishment a perfect digital research and development system as well as improve the quality of product design. The national standard on elevator manufacturing and installation safety is favorable for improving the safety level of elevators and facilitating the technical development of the industry in China.

In terms of services, GB/T 39668-2020, *Specification of service for technology business incubator*, can enhance the quality and efficiency of technology business incubators, and effectively support startups and innovation. GB/T 39664-2020, *Specification of e-commerce cold-chain distribution service management*, specifies the delivery operation and management of e-commerce cold-chain distribution service providers, which helps improve the service quality of cold-chain distribution enterprises and upgrade the regulatory level of the industry.

Standardizing cross-border e-commerce industrial park

Transaction volume of China's e-commerce reached up to RMB 9.1 trillion in 2018, which is expected to exceed 12 trillion in 2020. As cross-border e-commerce enjoys boom, industrial parks, as an important part of cross-border e-commerce pilot area, is popping up. There arise problems about standardizing industrial park service to optimize operation and management and promoting their balanced development.

To this end, SAMR and SAC recently published the first national standard on cross-border e-commerce industrial park, with its full text disclosed at the National Public Platform on Standards Information, which will be put into effect on July 1.

GB/T 39678-2020, *Specifications for cross-border e-commerce industrial park service*, was developed with the joint efforts of Zhejiang E-commerce Promotion Association (ZEPA), China Jiliang University, China Quality Certification Center, CNIS, and other standards institutions and enterprises. It specifies definitions, terms, classification and basic requirements for cross-border e-commerce industrial parks, as well as basic principles, guarantee, quality provision, quality management and verification methods of industrial park services.

This standard is derived from a local standard of Zhejiang Province, introduced Yan Ying, head of the standard project, Deputy Secretary-General of ZEPA and associate professor at China Jiliang University. A great challenge in the process is to take into account the varieties of industrial parks in the whole country, differences in local polices and different operation means of those parks. To integrate the diversity, the project team have spent considerable time and energy in investigations across China. With their efforts, the standard is more adaptable and widely applicable.

It is believed that the standard will help improve industrial park service and provide basis for safe management and quality service, facilitating healthy and rapid development of cross-border e-commerce industry.

MOC releases sector standard on credit file evaluation of e-commerce companies

The Ministry of Commerce (MOC) recently released the sector standard on credit file evaluation of e-commerce enterprises (SB/T 11227-2021), which will be officially implemented on May 1, 2021.

With the rapid growth of e-commerce in recent years, new business forms and modes spring up together with increasingly enlarged scale and sophisticated types of market entities in China. Meanwhile, scattered credit information and asymmetrical information among these market entities lead to higher transaction cost and restrict the high-quality development of the industry.

Targeting at the problem, MOC has developed the standard based on widespread collection and adoption of related opinions. The standard defines the source and content of information as well as the evaluation indicators and methods of the credit files of e-commerce enterprises, guide the credit files to be established, evaluated and improved according to uniform criteria and provide technical support for the e-commerce credit system to be jointly established and the credit information to be shared and applied.

The standard has several main features including defining applicable objects, making clear how to establish and evaluate credit files and offering operating instruction.

At present, a webpage on co-constructing credit was established by the E-commerce Department of MOC on the platform for national e-commerce public services (**https://dzswgf.mofcom.gov.cn/xygj.html**) together with the launching of a related Webchat applet, helping enterprises to establish and maintain credit files and disclose their information, and providing query services to the public.

For the next step, the E-commerce Department of MOC will strengthen the publicity of standards to promote its application, guide more entities to make credit files jointly, creating a good atmosphere for establishing the credit system of e-commerce.

New occupational skills standards published

The Ministry of Human Resources and Social Security and MIIT published three national occupational skills standards (NOSS) in the areas of smart manufacturing, big data and blockchain to meet the needs of talents in emerging industries.

Those standards lay down requirements for the theoretical and professional capacity of practitioners in new areas, providing guidance and basis for their training and assessment. This further provides talent support for the deep integration of digital economy and real economy, and high-quality economic and social development.

Improving quality certification of testing and inspection institutions

China Quality Inspection Association in joint hands with Jiangxi Metrology Association released an association standard for internal check of testing and inspection institutions while making self-declaration of meeting quality certification requirements (T/CAQI 176-2021 & T/JMA 0002-2021), which came into effect since February 21.

The standard is an important measure for further reforming quality certification of testing and inspection institutions and implementing self-declaration system in the area, according to the deployment of SAMR. It will help those institutions facilitate credit construction and improve their social credibility, brand influence and market competitiveness.

On the other hand, with the support of the new standard, regulators can further streamline administration, improve business environment and optimize the management of quality certification of testing and inspection institutions. A credit-based operational and post-operation oversight model can be constructed, improving approval efficiency of quality certification and reducing operation cost of those institutions.

Some local bureaus for market regulation likely adopt the standard directly. Secretariat of testing and inspection integrity working group under National Social Credit Standardization Technical Committee (SAC/TC 470) will deliver live lectures and training on the subject, helping testing and inspection institutions grow better and faster.

HIGHLIGHTS |

The 20th WSC meeting held

World Standards Cooperation

Leading representatives from IEC, ISO and ITU attended the 20th meeting of World Standards Cooperation (WSC) held virtually on February 26. Shu Yinbiao, President of IEC President and Chairman of the Board of China Huaneng Group, presided over the event.

World Economic Forum (WEF) President Borge Brende delivered a keynote speech and shared his views on how international standards promote world economic and social development in the post-pandemic era in light of the current global pandemic, world economy and future challenges.

Rebuilding trust is the key to resolving the world's most pressing issues, such as continuing spread of coronavirus and climate changes without borders, pointed out Brende. Multilateralism is the most basic way to solve complexities in the current world, stressed he.

In a world full of challenges and opportunities, digital transformation is irreversible. Internet applications shall be more widely available around the world. Meanwhile, measures shall be taken to ensure cyber security and prevent the widening gap of global inequality due to digitalization. International standards can promote efficient allocation of resources in the world and enhance global cooperation, facilitating a fairer and more efficient market environment and advancing world trade development, said Brende.

To resolve many world challenges, we should strengthen global cooperation, uphold multilateralism, and collaborate in building a community of shared future for mankind, Shu agreed.

He concluded, science and technology innovation is seen as the core of the transition toward digitalization and green energy, which have a stake in the future world economic development. International standards will play a bigger role in a world of emerging technologies. The three international standards organizations have established close cooperation and have been committed to resolve global issues through international standards. The meeting will help strengthen the cooperation between WSC and WEF, jointly contributing to world economic growth.

Global e-commerce standardizers meet online

With the great efforts of Hangzhou Municipal Institute of Standardization, ISO/TC 321 on transaction assurance in e-commerce held the 2nd plenary meeting online on February 3, bringing together over 40 representatives from around the world. Lin Xiao, Chinese delegate and Deputy Director-General of Hangzhou Administration for Market Regulation, attended the event and offered suggestions for the committee work. Song Mingshun, Chair of ISO/TC 321 and President of China Jiliang University, addressed the event.

The meeting concluded the work in the past year and made plans for the future work. In light of the quick progress in global e-commerce, participants agreed to accelerate the development of basic rules and standards for transaction assurance in e-commerce.

First, advance the existing standards projects, including ISO/WD 32110 on terminology and ISO/WD 32111 on principles and framework of transaction assurance in e-commerce, as well as two preliminary work items on the guidelines for sharing of cross-border e-commerce commodity traceability and acceptance of e-commerce quality assessment results.

Second, enhance communication and cooperation with relevant TCs, SCs and international organizations, such as ISO/TC 286 on collaborative business relationship, ISO/PC 329 on consumer incident investigation guideline, ISO/IEC JTC 1/SC 31 on automatic identification and data capture techniques, the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), World Customs Organization, and GS 1.

Third, intensify innovation efforts. The committee will discuss the feasibility of establishing a communication task group in the next plenary meeting scheduled for November. The aim is to promote interactions with relevant ISO TCs, publicize standards knowledge among global e-commerce stakeholders and seek more cooperation opportunities.

HIGHLIGHTS |

CNIS experts attend APEC/SCSC meeting

The Sub-Committee on Standards and Conformance (SCSC) of APEC held a virtual meeting from January 19 to 21, 2021 on the testing and conformance capacity building for the fine bubble technology used in the areas of agriculture, aquiculture and water treatment. Representatives from the Sub-Institute of Resources and Environment of CNIS, undertaking the SAMR secretariat for APEC regional cooperation since 2016, joined the event together with more than 40 representatives from over 10 countries.

Participating experts interpreted standards relating to conformance of fine bubble technology, introduced related ISO standards under development, gave examples of application of the technology in different areas, and reported on the need of data sharing for harmonizing the testing procedures of fine bubble application.

CNIS experts exchanged views on the application prospects of fine bubble technology in agriculture and industrial water reuse with member of Japan Fine Bubble Industrial Association and contact person of ISO/TC 281 on fine bubble technology in Singapore.

IEC/TC 129 on electric power robots set up

IEC/SMB approved China's proposal of establishing a technical committee on electric power robots (IEC/TC 129) on February 23, with its secretariat set up in China.

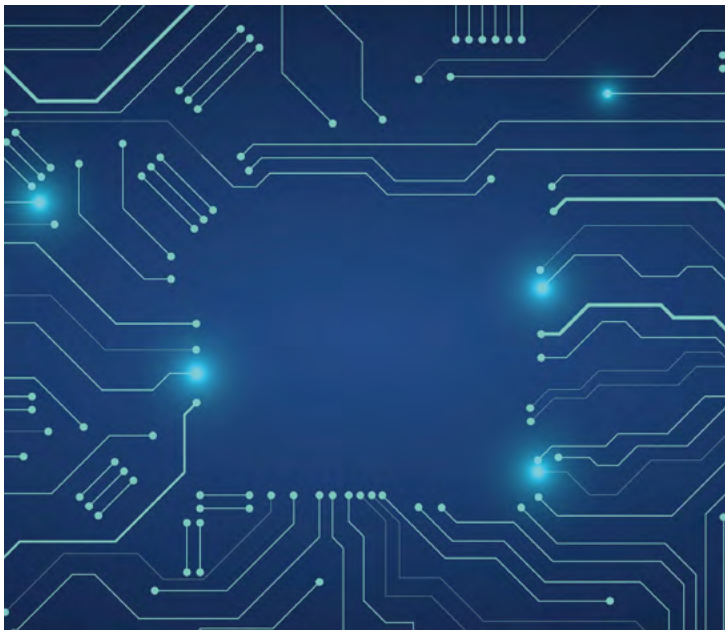
Electric power robots can replace humans to conduct safety inspection of electric power facilities more intelligently and flexibly under the condition of live working, strengthening the management of such facilities. We can thus ensure safe and stable operation and improve the intelligent level of power grid.

The new TC will promote global exchanges of innovative technologies, promote smart grid development, and lead high-quality development in electrical power enterprises and upstream and downstream industries, contributing to national new infrastructure construction.

New IEC standard on electric power drive system

After three years of efforts led by Hubei Standardization and Quality Institute and WISDRI Automation Co., Ltd., China makes a breakthrough in contributing to the publication of a new IEC standard on adjustable speed electric power drive system.

The recently published IEC 61800-1: 2021, *Adjustable speed electrical power drive systems—Part 1: General requirements—Rating specifications for low voltage adjustable speed DC power drive systems*, applies to adjustable speed electric DC power drive systems, which include semiconductor power conversion and the means for their control, protection, monitoring, measurement and the DC motors.



China contributes to plastics standardization

On the basis of two sector standards on plastics developed by PetroChina, Co., Ltd., two new ISO standards were recently published, helping improve the testing of key indicators in the production and processing of plastics.

ISO 24076: 2021, *Plastics—Polypropylene (PP)—Determination of isotactic index by low-resolution nuclear magnetic resonance spectrometry*, provides an efficient and green testing method for the determination of PP isotactic index, resolving the drawbacks of the current method specified in ISO 9113.

ISO 24047: 2021, *Plastics—Polyethylene (PE) and polypropylene (PP) thermoplastics—Determination of metal content by ICP-OES*, specifies a method for the determination of metal content in PE and PP, filling the gap of relevant testing methods in ISO standards system.

Achieving excellent development with GSP

倡导标准化行为 成就卓越性发展

Interview with Gao Jianzhong
Secretary-General of CAS
访中国标准化协会秘书长 高建忠

To promote enterprise standardization concepts and methods and help companies better use standardization to improve production, operation, management and services, China Association for Standardization (CAS) has organized the initiation and evaluation of Enterprise's Good Standardization Practice (GSP). *China Standardization* sat down with Gao Jianzhong, Secretary-General of CAS to find more about the progress of GSP in China.

Where is Good Standardization Practice (GSP) derived from?

Gao Jianzhong: "Good Standardization Practice" comes from ISO/IEC Guide 59: 1994, *Code of good practice for standardization*. The guide deals with the procedures for development of standards, advancement of international trade and participation in standards activities, which has been revised as ISO/IEC Guide 59: 2019, *ISO and IEC recommended practices for standardization by national bodies*. GSP refers to the advanced ideas of the guide.

In 2004, SAC launched the pilot program of GSP to implement the series of national standards for enterprise standards system published in 2003. The pilot program lasting for 16 years plays a critical role in improving the basic level of standardization, and facilitating technological advancement and management level in companies, thus improving their product quality. Many local governments have included the GSP certificate into the incentive policies for enterprise standardization. The certificate has also been widely recognized in market activities such as bidding and invitation for bids, which can be directly used in the production and operation of companies.

Can you tell us more about the series of national standards for enterprise standardization? What are their unique characteristics?

The story actually began 35 years ago. In 1986, the State Council issued the Decision on Strengthening the Management of Industrial Enterprises, which clearly put forward strengthening the management of enterprise standardization and gradually establishing an enterprise standardization system including management and duty standards with technical standards as the core.

In 1987, the then National Standardization Bureau released the Opinions on Establishing Enterprise Standardization System, aiming at establishing enterprise standards system and enhancing enterprises' capability of applying standards and standardized management. The system is regarded as the foundation of strengthening enterprise management and a key step of business management modernization.

Series of national standards for enterprise standardization

GSP Service Platform combines the online and on-site GSP evaluations and the management of information and data

To this end, CAS organized to develop and publish three national standards in 1995, including GB/T 15496-1995, *Guidelines for the work of standardization of enterprise*, GB/T 15497-1995, *Enterprise standard system—Structure and requirements of technical framework standard*, and GB/T 15498-1995, *Enterprise standard system—Structure and requirements of administrative framework standard and duty standard*. These standards can only be applied in industrial companies.

In May 2002, CAS was responsible for revising the three standards. And another standard, *Enterprise standard system—Evaluation and improvement* was added to the series of standards. In 2015, CAS started the revision of these standards. The revised series of national standards were officially released at the end of 2017 and came into force on July 1, 2018, which included GB/T 35778-2017, *Enterprise standardization—Guidelines*, GB/T 15496-2017, *Enterprise standard system—Fundamental supports*, GB/T 15497-2017, *Enterprise standard system—Product realization*, GB/T 15498-2017, *Enterprise standard system—Fundamental supports*, GB/T 19273-2017, *Enterprise standardization work—Evaluation and improvement*. The five standards are known as "series of national standards for enterprise standardization".

Based on demand analysis, the series of standards define the methods of establishing enterprise standards system and self-design concepts, and combine it with all kinds of management systems such as enterprise culture and social responsibility, quality and lean management, safety and occupational health management, environmental and energy management, intellectual property and information management, etc. They also encourage companies to participate in domestic and international standardization activities, make innovations of harmonized mode between technology and standards, thereby making more valuable achievements in standards.

What is actually GSP and the third-party evaluation?

GSP means that a company conducts enterprise standardization work according to the above-mentioned series of national standards, and establishes standards system that is effectively operable, thus realizing good economic and social benefits.

The third-party evaluation refers to the evaluation activity on enterprise standardization, enterprise standards system and implementation results conducted by registered third-party evaluation bodies selected by the companies meeting certain requirements themselves.

What is the value of GSP? How can it promote scientific & technological innovation in companies?

First of all, conducting GSP activity proves that a company has established and implemented enterprise standards system to meet the needs of production, operation, management and services. In addition, the standards system is applicable and effective. Second, it can increase consumers' trust for products and services provided by the company, which surely comply with certain standards. Third, it proves that the company's products and its whole process ranging from production, operation to management comply with the requirements of national standardization laws, regulations and relevant technical specifications. Its products and services have reached a relatively high level of standardization. Fourth, carrying out GSP can improve the operational efficiency internally and add values externally, presenting the best orders of production, operation and management to both employees and the society.

GB/T 35778-2017 has provided guide for scientific & technological innovation in companies in its chapter 11, including planning and organizing standardization innovation work to transform scientific & technological results into productivity quickly; exerting the role of technologies, funds and talents of companies to facilitate harmonized innovation; converting innovative results such as patents and new technologies as well as innovative management system, mechanism and methods into standards in time to guide production, meanwhile making sure that intellectual property is protected.

Besides, in the rating sheet of GB/T 19273-2017, standardization innovation is listed as the extra score item with 5 points. In this way, scientific & technological innovation and GSP work support each other, making progress in a harmonized way.

Can you give some examples of GSP work making practical benefits?

The first example is Ningbo Bull Electric Company. In the process of conducting GSP work, Bull Electric applied standardized principles to realize standardization goals and used lean production management, carrying out standardization in the aspects of product quality, module design and process improvement.

First of all, Bull Electric persists in using advanced standards to achieve high product quality. It develops its own product standard with IEC 60884-2 as benchmark, adding the requirements of electromagnetic compatibility, rated value and resistance performance, stricter than that in GB/T 2099, into the standard.

Second, Bull Electric attaches importance to modular design and the standardized coefficient reaches over 80%, dramatically reducing the categories of modular specifications and components and parts. As a result, the standardization of modular design, production and management reduces costs of module development and manufacturing, and shortens time of changing the type of production line, thus improving efficiency and reducing waste.

Third, in terms of process route setting and process layout, the company uses standardized means to take into full consideration the factors of logistics, information flow and staff flow, and improves allocation, makes reasonable and standardized layout, and achieves standardization of material site layout with regular time, fixed site and quantity, thereby reducing stock and improving efficiency.

In addition, Bull Electric applies PDCA concepts when addressing quality issues to constantly improve standards quality. Improved standards can further complete its knowledge base, which can in turn guide the process of product development and procedure optimization, creating a virtuous cycle among improvement, standards and promotion and reaping good economic and social benefits.

The second example is the Administrative Service Center of Taizhou People's Government. In May 2018, the General Office of the CPC Central Committee and the State Council jointly released the *Guiding Opinions on Further Promoting Convenient Administrative Approval Services*, aiming at promoting the typical experience of "One-stop Government Service" in Zhejiang province across the nation.

In recent years, Taizhou city of Zhejiang province has actively implemented the "One-stop Government Service + standardization" mode and used standardization concepts in the whole process of government governance and services. It has also established the standards system of government affairs services covering "service items gathering, on-site management of administrative service hall, training of staff for window services, supervision and evaluation of service quality", which has effectively streamlined service items and procedures and improved service quality and satisfaction of the public and companies.

After carrying out standardization in the past four years, the Administrative Service Center of Taizhou has improved the work efficiency of service window from 40.75% to 76.23%. The public's sense of gain in administrative services has increased by 2% year on year, reaching 98.15% in 2019.

In July 2019, the Administrative Service Center of Taizhou successfully passed the acceptance check of the National Good Standardization Practice, and was awarded as the first AAAAA GSP Unit in the administrative service field in China.

The third one is China Electronic Technology Instruments Co., Ltd. (CETI) headquartered in Qingdao, East China's Shandong province. As a member of SAC/TC 153 on electronic measuring instrument, CETI has a professional team engaged in the research and development of electronic measurement instruments, automatic testing system, microwave & millimeter wave components, and other electronic products.

With standardization as powerful support, CETI has kept on developing new technologies and products, meeting the urgent demands of China's military units. It has reaped more than 400 R&D achievements, wining 6 national awards and more than 100 ministerial and provincial science and technology advancement awards.

In February 2020, CETI passed the acceptance check of third-party evaluation of GSP, winning the AAAA Certificate of GSP.

What requirements shall be met if a company wants to apply for the third-party evaluation of GSP? And how to apply for it?

The company shall adopt the standardized whole process management in both production and operation according to the requirements of the five national standards on enterprise standardization. After implementing the management process effectively for three months, it shall make a complete self-evaluation on the application and effectiveness of standardization and standardization management level. The result of self-evaluation will serve as the important evidence for the third-party evaluation.

As the promoter of GSP work and evaluation, CAS has organized the publicity of the series of national standards and training of evaluation experts, and also established the GSP Service Platform (**www.gspchina.org.cn**). The platform combines the online and on-site GSP evaluations and the integrated management of information and data in the whole process. The information about the registered third-party evaluation bodies and experts can be accessed on the platform, together with the result of GSP evaluation.

(Chinese version written by Zhang Peiyu; edited and translated by Cao Xinxin)
采写/张佩玉 编译/曹欣欣

Standards promote green development of smart household appliances

标准推动绿色智能家电发展

Interview with Qu Zongfeng,
Vice President of CHEARI and President of CHEARI (Beijing) Testing and Certification Co., Ltd.
访中国家用电器研究院副院长、中家院（北京）检测认证有限公司总经理 曲宗峰

China is the largest manufacturer and consumer of household appliances. What role has standard played in upgrading product quality and promoting scientific and technological innovation in the industry? Qu Zongfeng, Vice President of China Household Electric Appliance Research Institute (CHEARI) and President of CHEARI (Beijing) Testing and Certification Co., Ltd., shares his insights into how standards help boost the rapid growth of the industry.

Association standards on household appliance

China has witnessed the surge of association standard since its legal status was recognized in the revised *Standardization Law of China*. Association standard has won increasing recognition. In terms of household appliance, association standards work presents the following characteristics:

First, more systematic process of standards development. Association standards systems are inclined to facilitate smart, green, healthy, and elderly and children-convenient development.

Second, greater importance of the quality and practicability of standards. High-quality development is stressed in the current association standards work. For example, the number of association standards developed by Electric and Electronic Division of China Association for Standardization (CAS) each year has decreased from 52 to 32. While controlling the number, the Division makes efforts to improve the quality of association standards. Four association standards developed by the Division in 2020 have been regarded as demonstration projects for the application of association standards by MIIT.

On the basis of achievements relating to association standards, CHEARI has carried out the voluntary certification of oil fume suction performance of exhaust hood, safety requirements of electric heating stoves, wireless connection performance of smart home devices and other devices, winning the recognition of the industry. We are committed to developing high-quality standards and creating renowned brands by keeping improving ourselves and attaching great importance to the quality of association standards.

Third, more active interaction with international, national and sector standards. National standards have cited in 2020 three standards developed by Electric and Electronic Division of CAS, including T/CAS 287 2017, T/CAS 289-2017 and T/CAS 333—2019, respectively specifying technical specifications for the assessment of intelligent level of household electric refrigerator, household room air conditioner, and technical requirements for household and similar massage chairs. T/CAS 342—2020, *Household dehumidifier*, has been adopted as sector standard. Two more association standards have been approved as IEC/ISO standards projects.

Keeping pace with technical development and market needs

In recent years, technological advance has greatly boosted the development of household appliance, especially the smart ones. Emerging technologies such as AI, big data, cloud computing and 5G are no longer abstract conceptions out of reach, and they are gradually integrated into the industrial chain.

With the support of those new technologies, the industry is upgrading from traditional to intelligent manufacturing. Some industrial internet-based smart plants have been able to manage the whole production lifecycle. Household appliances also transcend the period of extensive development toward targeted and individualized service. As a result, products have more functions and better performance and provide better user experience with lower energy consumption.

Take household air conditioner as an example. Traditionally, air conditioner can only control room temperature according to the set value and actual temperature. Equipped with infrared sensor, voice function and camera, smart air conditioners are able to control temperature, humidity and air quality and provide comfortable environment for different groups of people. In light of data retrieved from the internet and user preference and habits, they can meet diversified needs.

On the other hand, market needs have always been a source of motivation for the industrial development. Especially in the recent five years, as consumer market becomes increasingly segmented, the industry moving towards high-quality development is making up for the lack of certain basic products, and devoted to meeting more individualized, high-end needs. Apart from optimizing basic functions, smart household appliances begin to serve the social interaction needs of users, through interconnections between those appliances.

Such products are also moving in the direction of healthy and green development. Based on smart technologies, the industry is embarking on creating application scenarios to meet health needs of users such as health monitoring. For example, electric kettle is used to monitor how much water an elderly drinks a day, or smart toilet lid can monitor whether an elderly with heart disease fails to get up due to an acute heart attack. Even data collected from smart switches or lights can tell whether an elderly is in danger.

Smart cameras can automatically tell whether an elderly falls down or falls ill. Smart household appliances are expected to embrace a brighter future when more market needs are discovered and met.

As an authoritative service provider, CHEARI has always been committed to the standards, testing and certification work of smart products to facilitate sound development of the industry. It has established an assessment system for the intelligent level of smart products and their performance, including functionality, safety, reliability and performance.

Green, energy-efficient and environment-friendly path

China has advocated the establishment of green manufacturing and extended producer responsibility system in the industrial sector since 2016 and initiated the development of a series of green manufacturing standards, so as to promote low-carbon, green and sustainable industrial development. The household appliance industry is working on related sector standards and association standards.

Specifically, the industry shall attach great importance to green designing process of household appliances, taking into account the environmental impact of materials selection, production, packaging, recycling, etc. This will be effective in ushering the industrial sector in an era of green products.

In addition, the industry has been active in developing standards and accumulated good practice in constructing green supply chain. Household appliance enterprises accounted for 8% of the 189 model enterprises in total in green supply chain construction announced by MIIT till December 2020, including Haier, Midea, TCL and other large enterprises, who have distinct advantages.

Some large enterprises in the industry also have practical experience and initial results in constructing end-of-life recycling and disposal system, which is the core of extended producer responsibility. For example, Gree, Changhong and Hisense have been approved as the first batch of pilot enterprises to fulfill extended producer responsibility. Two years after *Regulations on the administration of recycling and disposal of waste electrical appliances and electronic products* was promulgated in 2009, many large enterprises have shouldered economic responsibility for the recycling and disposal of waste household appliances. They have explored the behavioral responsibility as part of extended producer responsibility since 2015. However, it is difficult for all household appliance enterprises to fulfil such responsibility due to the high cost of recycling and disposal.

As a result, leading household appliance enterprises in China have gained stronger R&D and manufacturing capacity and greater influence, and have begun to embrace the international standards community. For example, Haier has held a seat in IEC/MSB, undertaken the secretariat of IEC/SC 59A on electric dishwasher, and spearheaded the work of IEC/TC 59/SC 59M WG 4 on food preservation and storage of electrical household and similar cooling and freezing appliances. CS

(Chinese version written by Zhang Peiyu; edited and translated by Jin Yingguo)

采写/张佩玉 编译/金英果

2020中国标准化社会关注度评议

Looking back over the past year, remarkable progress has been made in the standardization field of China with COVID-19 pandemic under proper control. Here, we selected the most high-profile events, prominent standards and influential figures of the year to showcase the steady development of standardization in the country.

Most high-profile events
“标准化新闻事件”回顾

Mandatory national standards to be better regulated 01

The Administrative Measures for Mandatory National Standards, released on January 14, 2020 by SAMR, has been put into force since June 1, 2020. Composed of 55 articles, the document is used for regulating the development of mandatory national standards in China, covering the stages including submission and approval of standards projects, standards drafting, opinion solicitation, technical review, announcement, numbering, approval and release, implementation and supervision of standards.

As the Administrative Measures stipulates, the principle of commonality should be upheld to give preference to the development of interdisciplinary product, process or service standards. Based on scientific and technological findings and social practice experience, in-depth investigation and demonstration should be made to ensure that standards are developed in a scientific, normative and timely manner. And international standards should be adopted depending on national circumstances.

Besides, various means should be taken in an open, transparent, convenient and effective way to solicit opinions from all sides. And specific management department for standards implementation and supervision should be established to deal with the violations of mandatory national standards in accordance with the stipulations of related laws, regulations and rules.

English versions of 13 national standards on pandemic prevention released 02

SAC approved and released the English versions of 13 national standards on pandemic prevention on April 3 through a rapid process, giving full play to the fundamental role of standards in pandemic prevention and control.

After that, SAC presented these standards to over 30 countries in need including Bangladesh, Serbia, Italy and Iran, and made them freely accessible on the national public platform for standards information (**http://std.samr.gov.cn**) to help domestic enterprises resume work and production, serve foreign trade and export as well as facilitate foreign aid.

Making your packaging greener 03

The Guidelines for Enhancing the Green Packaging Standardization in Express Delivery Industry was jointly released on August 9 by eight ministries and national bureaus including SAMR, NDRC, MOST and State Post Bureau to unveil the overall plan of standardization work in the sector in China in the upcoming three years.

Centering on the key requirements of greenness, simplification and recycling of express packaging, the Guidelines puts forward the overall objective of establishing a strict and binding standards system on green packaging of express in an all-round way and gradually improve related standards and governance system coordinated with relevant laws and policies by 2022.

For the next step, SAMR will develop and release standards with green concept as the guiding principle, constantly improve the standards system of green packaging covering its full life cycle and facilitate the green revolution with standards.

Standards system of e-government affairs to be strengthened 04

The Guidelines for Establishing the National Standards System of E-government Affairs was issued on June 18 by six ministries and national departments including SAMR, General Office of the CPC Central Committee, General Office of the State Council, Central Cyberspace Affairs Commission, NDRC and MIIT.

The standards system is composed of seven parts, namely fundamental standards, standards on infrastructure, data, business, service, management and safety. Besides, to address the major conflicts and problems restricting the development of e-government affairs, the Guidelines proposes the framework and priorities of related subsystems in key fields such as data opening and sharing, development and application of public information and resources, electronic files as well as Internet+ government affairs.

The Guidelines will enhance the top design of e-government affairs standardization, providing an effective guide to ensure the sound and orderly development of the industry.

Action plan for better additive manufacturing released 05

The Action Plan for Leading the Development of Additive Manufacturing by Standards (2020-2022) was jointly released on March 5 by six ministries and national departments, including SAC, MIIT, MOST, MOE, National Medical Products Administration and Chinese Academy of Engineering.

According to the Action Plan, a new standards system of additive manufacturing will be established based on national conditions and aligned with international development by 2022.

About 80 to 100 standards on special materials, technologies, equipment, software, test methods and services of additive manufacturing will be developed, including a group of competitive and advanced association standards, which will exert their leading role in technical innovation and industrial development. Two or three standards on superior technologies are expected to be converted into international standards, and the conversion rate of relevant international standards will reach up to 90%. The international influence of additive manufacturing standards will be greatly increased.

Guidelines on AI standards system issued 06

The Guidelines for Establishing the National Standards System of Next-Generation Artificial Intelligence (AI) was jointly issued by SAC, Cyberspace Administration of China, NDRC, MOST and MIIT on August 6 to improve the top design of standardization, promote related technical R&D and standards development as well as facilitate the healthy and sustainable development of the AI industry.

According to the Guidelines, by 2021, China will specify the top design of AI standardization, conduct research on the overall rules of standards systems and standards development, define the relationship among standards, guide the standardization work in an orderly manner, and complete the preliminary research on over 20 key standards regarding key common technologies, technologies in key areas and ethics.

By 2023, China will establish a preliminary standards system on AI, develop urgently needed standards in the fields of data, algorithm, system and service, take the lead in promoting standardization in key industries such as manufacturing, transportation, finance and security, establish the platform for experimental verification of AI standards and boast the capability of public services.

Proposal of a new ISO award approved 07

The proposal of establishing an ISO award on international standardization young professionals, initiated by former ISO President Dr. Zhang Xiaogang, was approved by ISO in May 2020. The award is the first international award initiated by an individual expert, which fully recognizes the capability and level of China's participation in international standardization activities.

The award aims at motivating young professionals to participate in international standardization work, promoting the sustainable development of international standardization and providing strong talent support for putting the ISO Strategy 2030 in place. The award will be announced biennially, and winners will be subsidized to work for half a year at the Central Secretariat of ISO.

In the upcoming years, SAMR will strengthen the building of international standardization talents, recommend Chinese experts to international standardization organizations including ISO and contribute more Chinese solutions and wisdom to the future development of international standardization.

33 international standards on pandemic control accessible for all 08

To make good use of the technical advantages of standards and combat the global-spreading COVID-19 pandemic, SAMR and SAC actively communicated with ISO and IEC, and helped make international standards for pandemic control freely accessible so as to vigorously help enterprises resume production.

With the authorization of ISO and IEC, a total of 33 international standards on artificial respirator for medical use, protective garment, biological assessment of medical devices and others were freely accessible on the national portal of standards information (**https://www.sacinfo.cn**) on April 24, exerting the critial role of standards in the fight against the pandemic.

International standards proposals collected for COVID-19 fight 09

A notification was issued by SAC on February 18 to publicly solicit the international standards proposals on prevention and control of COVID-19 pandemic.

According to the notification, the aim was to summarize and promote the experience in China's pandemic prevention and control, and contribute Chinese ideas and wisdom to the international community.

Various parties were also encouraged to submit proposals on new work projects and new technical areas to ISO and IEC, including enterprises, research institutions, inspection, testing and certification bodies, industry associations as well as universities.

Accelerating the conversion between international and national standards 10

The Ten Policies and Measures for Supporting Enterprises to Resume Work and Production was jointly issued by SAMR, National Medical Products Administration and China National Intellectual Property Administration on February 15.

It puts forward accelerating the conversion between international and national standards and promoting the connection between the standards as the basis of exported products and Chinese standards.

The policies and measures in the document include registration services on the Internet, performing informing commitment, establishing the green channel for administrative approvals, extending the limit for administrative approvals, accelerating the conversion and application of standards, stringent management of abnormal catalog, investigation of unreasonable charges and price rises, enhancing the assistance in quality technical services, reducing the technical service fee as well as encouraging enterprises to attend the campaigns for ensuring stable price, quality and supply of goods.

Most prominent standards
“最受关注标准”回顾

01 GB 38600-2019, *Basic specification of service safety for senior care organization*

GB 38600-2019 was approved and released by SAMR and SAC on January 13, 2020. It was the first national mandatory standard in the elderly care field and also an important measure for putting the national senior care work into place.

The standard is greatly different from common voluntary national standards, according to Tian Shihong, Vice-Minister of SAMR and Administrator of SAC. As a mandatory national standard, it must be enforced by relevant parties, as it is the baseline for ensuring the quality of senior care services.

The landmark standard is closely related to people’s livelihood, aiming to meet the demands of industrial development and serve the interests of the public. Therefore, SAMR and SAC pay great attention to the development and implementation of the standard, Tian Shihong added.

02 Series of national standards on personal health information code

The series of national standards on personal health information code were issued on April 29 by SAMR and SAC via a rapid channel, which only took 14 days from project approval to publication.

The standards, developed by SAC/TC 28 on information technology, include GB/T 38961-2020, *Personal health information code— Reference model*, GB/T 38962-2020, *Personal health information code—Data format*, and GB/T 38963-2020, *Personal health information code—Application interface*.

After implementation, these standards will help realize the harmonious system, display mode and data of personal health information code while protecting personal information and strengthening information sharing. They can help guide the design, development and system integration of relevant information system for health code.

GB/T 38880-2020,
Technical specification of children mask

03

GB/T 38880-2020 was officially released and implemented by SAMR and SAC on May 6. It defines the basic requirements, appearance, quality as well as test methods of children masks suitable for children at the age of 6-14, and puts forward 19 main performance indicators in the aspects such as protection, comfort and safety.

The standard is proposed by China National Textile and Apparel Council, and developed with the joint efforts of experts in the fields of medical appliances, personal protection, healthcare, ergonomics, textile materials and testing. It provides reference for correctly choosing and wearing children masks, regulating industrial competition and enhancing market regulation, and offers technical support to children mask manufacturers.

Besides, it provides clear safety warnings of wearing masks. For example, children should wear masks under the care of adults; masks should be changed timely, and reuse after washing or exchanging used masks are not recommended; and children with breathing difficulties should not wear masks.

T/CCPITCSC 042-2020,
Specification for contactless delivery service

04

T/CCPITCSC 042-2020, the first association standard of its kind, was released on March 10. The standard provides e-commerce platforms, delivery enterprises and catering enterprises with detailed and simplified specifications for contactless delivery, safeguarding users’ safe consumption.

The standard comprises seven parts, specifying the terms and definitions, service requirements, service procedure, dealing with exceptional conditions, and service quality control. The full text is available on the national platform on association standards information (**http://www.ttbz.org.cn**).

Seven national standards on sanitary protection and disaster management

05

SAMR and SAC released a batch of key national standards on March 16, covering various aspects concerning social welfare, sanitary protection and disaster emergency management closely related to pandemic prevention and control.

In the field of sanitary protection, seven national standards including GB/T 38499-2020, *Evaluation method for stability of disinfectant*, GB/T 38503-2020, *Good manufacturing practice for disinfectant*, GB/T 38496-2020, *Toxicological procedures and methods of safety evaluation for disinfectant*, GB/T 38497-2020, *Evaluation method of endoscopic disinfection effect*, GB/T 38498-2020, *Evaluation method for determining metal corrosion of disinfectant*, GB/T 38502-2020, *Test method for bactericidal effect of disinfectant in laboratory*, and GB/T 38504-2020, *Evaluation method of disinfection effect of spray disinfection*, specify the requirements of safety, stability, metal corrosion and disinfection effect of disinfectant products and the production conditions of disinfectant manufacturers.

These standards will play a key role in improving the quality of disinfectant, containing the pandemic, addressing the public health emergencies as well as facilitating infection control in hospitals and sanitation in households.

GB/T 39050-2020, *Specification for distance learning service*

06

GB/T 39050-2020 was released and implemented on September 29, which was proposed by SAC/TC 443 on educational services and drafted with the joint efforts of various parties such as CNIS, National Center for Schooling Development Programme, research institute and a few universities.

Combined with domestic and foreign frontier achievements of standardization, the standard of great importance provides normative requirements for distance learning service, which is helpful for improving the management level and service quality of distance learning in China amid the COVID-19 pandemic, and providing a strong guarantee for establishing the mode of quality distance learning service and improving the lifelong education system.

T/CFCA 0015-2020, *General requirements for children snacks*

07

T/CFCA 0015-2020, the first of its kind in China, has been developed by China Non-staple Food Circulation Association (CNFCA) and implemented since June 15, which defines the requirements for nutrition, health and safety of children snacks in a holistic way.

The association standard explicitly stipulates the raw material requirements, nutritional ingredients, microbiological indicators, food additives and other ingredients in children snacks. It determines different key nutrient requirements based on the growth characteristics of children in two different age groups including 3-6 years old and 6-12 years old.

Safety is the top priority of children food. It is a central part of material selection, product formula, production technology and even packaging in the procedure of children food production. According to the Bestore Company, one of the drafting units, the association standard is expected to provide a technical basis for the research and development of nutritious children snacks and enterprise standards, set the industry benchmark, and support the sound development of the sector.

Three mandatory national standards for EV safety

08

SAMR and SAC released three mandatory national standards on electric vehicles (EVs) on May 12, GB 18384-2020, *Electric vehicles safety requirements,* GB 38032-2020, *Electric buses safety requirements,* and GB 38031-2020, *Electric vehicles traction battery safety requirements*.

These standards define the safety requirements for parts, system and finished electric vehicle and electric bus. The main contents of the standards are geared to UN GTR No.20 on electric vehicle safety and some of the requirements are stricter than international regulations. The standards, implemented on January 1, 2021, are expected to further promote the technological progress in the area and improve the overall safety of EVs.

Series of standards on patent navigation guide

09

Drafted by China National Intellectual Property Administration, the series of standards including GB/T 39551.1-2020, *Patent navigation guide—Part 1: General principles*, were issued on November 9, 2020 and expected to be officially implemented on June 1, 2021.

These standards enhance the whole process management by means of quality control in the process of project implementation, and ensure the systematic research on patent navigation, scientific analysis methods and normative achievement presentation.

Besides, they can enhance the result management by performance assessment, and adopt the assessment method of management by objectives to assess the performance of achievement application in accordance with the demand of patent navigation work, and ensure the effective application of decisions and suggestions of patent navigation.

GB/T 1.2-2020, *Directives for standardization—Part 2: Drafting rules of standardizing documents based on ISO/IEC standardizing documents*

10

GB/T 1.2-2020 was approved and issued by SAMR and SAC on November 19, 2020, defining the general principles and relevant rules to be followed when drafting national standardization documents based on ISO/IEC standardization documents. Together with GB/T 1.1, it constitutes the system for the drafting rules of standardization documents with different approaches.

The standard will facilitate the normative adoption and application efficiency of ISO/IEC standardization documents, promote the international and other countries' mutual recognition of China's standardization documents, so as to drive foreign trade and international communication.

Most influential figures
“标准化新闻人物”回顾

Zhang Xiaogang
Assuming Chair of Standardization Work Committee of ACFIC

SAMR and All-China Federation of Industry and Commerce (ACFIC) held a virtual meeting on October 10, 2020, aiming at promoting standardization work in the area of private economy.

At the meeting, the Standardization Work Committee of ACFIC was officially established and Zhang Xiaogang, former ISO president and member of China Standardization Expert Committee, assumed Chair of the Committee.

Zhang Xiaogang moderated the meeting of the Committee, clarifying the main responsibilities and tasks of the Committee. First of all, it shall serve the needs of the national strategy, offering advice according to development needs; second, it shall publicize relevant policies to raise the standardization awareness of companies; third, it shall facilitate exchange and cooperation to help companies participate in standardization activities; fourth, it shall promote the development of association standards and establish standardization systems; fifth, it shall strengthen research and arguments on standards issues; last but not least, it shall participate in the recommendation of nominees and appraisal of awards.

The Chinese team bagged the Gold Award and KEIT Award at the 15th International Standards Olympiad jointly organized by the Korean Agency for Technology and Standards (KATS) and the Korean Standards Association (KSA) through video conferencing from November 17 to 19, 2020. The competition is consisted of Middle School and High School categories.

The Chinese team from Xiamen Foreign Language School with Cui Yifei, Ruan Yuxin and Hong Yueqian as members and Qian Yongchang as adviser won the Gold Prize, and the team from Taizhou Bilingual High School that is composed of Wang Xinyi, Chen Zhenyu and Gan Junye with Zhao Zhian and Xu Jiahui as advisers received the Special Award of KEIT (Korea Evaluation Institute of Industrial Technology). The Chinese teams were selected and trained by China Association for Standardization (CAS).

The Chinese team

Winning the Gold Award and KEIT Award at the 15th International Standards Olympiad

Academician Zhao Xiangeng

Spearheading the research subject on National Standardization Development Strategy

The meeting for concluding the "China Standards 2035" project and the kick-off meeting of the research on "National Standardization Development Strategy" were held at the Chinese Academy of Engineering (CAE) in Beijing on January 14, 2020.

Zhao Xiangeng, team leader of the project and CAE Academician, chaired the event and Tian Shihong, SAMR Vice-Minister and SAC Administrator, delivered an opening address.

This research project will put forward the strategic goals of 2035 together with priorities, main projects and measures, making an overall plan for China's standardization work in the future, which is expected to be published in 2021.

Liu Yang

Elected as Joint Chair of RWG

Liu Yang, an engineer from Xiaomi Company, was elected the Joint Chair of RWG (Regulation Work Group) at the plenary meeting of Wireless Power Consortium (WPC) on March 2, 2020. Xiaomi became the sole Chinese smartphone manufacturer with expert serving as chair in WPC.

Established in 2008, WPC is an open, collaborative standards development group of more than 500 member companies from around the globe. WPC maintains and develops standards for a variety of wireless power applications, including the Qi standard, Ki Cordless Kitchen standard and the Medium Power standard.

With more than 5,000 Qi certified wireless charging products in the market, WPC uses a network of independent authorized test labs around the globe that test specific properties for safety, interoperability and usability.

Li Ming

Contributing to the publication of IEEE P2418.2

The first plenary meeting of IEEE C/BDL (IEEE Computer Society Blockchain and Distributed Ledger Standards Committee) was held on August 3, 2020, launching the development of 13 blockchain standards.

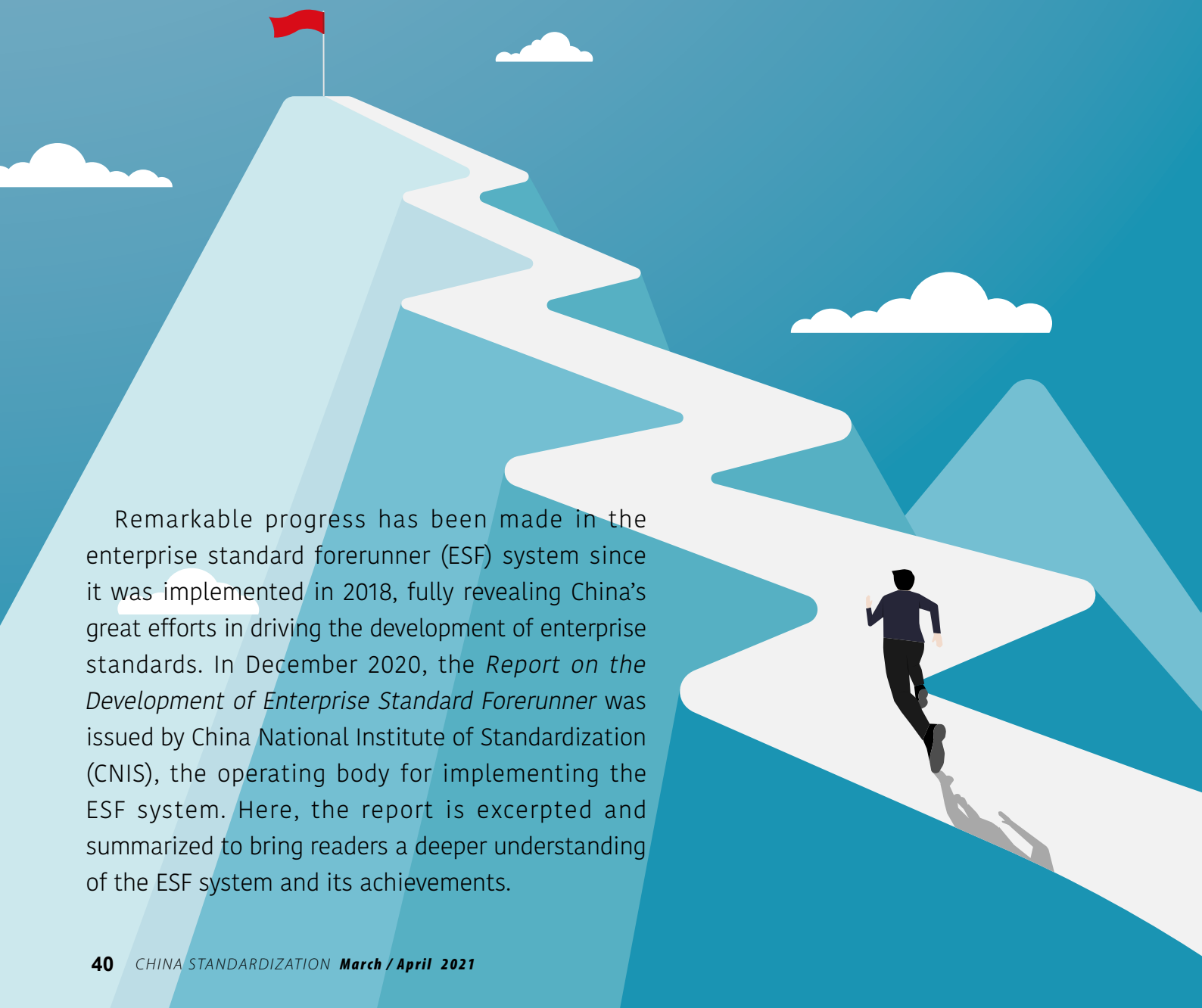
Li Ming, Chair of IEEE C/BDL and Head of Blockchain Research Office of CESI (China Electronics Standardization Institute), has made great contribution to the development and publication of the first IEEE blockchain standard, IEEE P2418.2 on standard data format for blockchain systems.

IEEE C/BDL is responsible for guiding, managing and supervising the whole process of blockchain standards ranging from proposal, development, review, publication, publicity and application, aiming at facilitating international standardization and standards application in this field.

In addition, he has made contribution to the approval of 2 national standards proposals on deposit and smart contract and the publication of 6 association standards on blockchain technology, which have great value for the standardized development of the blockchain industry. CS

Report on the Development of *Enterprise Standard Forerunner*

2020年企业标准“领跑者”发展报告



Remarkable progress has been made in the enterprise standard forerunner (ESF) system since it was implemented in 2018, fully revealing China's great efforts in driving the development of enterprise standards. In December 2020, the *Report on the Development of Enterprise Standard Forerunner* was issued by China National Institute of Standardization (CNIS), the operating body for implementing the ESF system. Here, the report is excerpted and summarized to bring readers a deeper understanding of the ESF system and its achievements.

A brief introduction to the ESF system

As an important part of China's standards system, enterprise standards used to be regulated through a filing system as a legal obligation of enterprises. With the increase of industrial categories and market scale, the limitations of the filing system were prominent, such as complex procedure and slow pace, unclear responsible subjects and legal responsibilities, and inadequate supervision of standards implementation.

To address those problems, the national platform on enterprise standards information (**www.qybz.org.cn**) was put into service in January 2015, and the self-declaration disclosure system was established to replace the filing management, according to the *Plan of Deepening the Standardization Work Reforms* issued in March 2015.

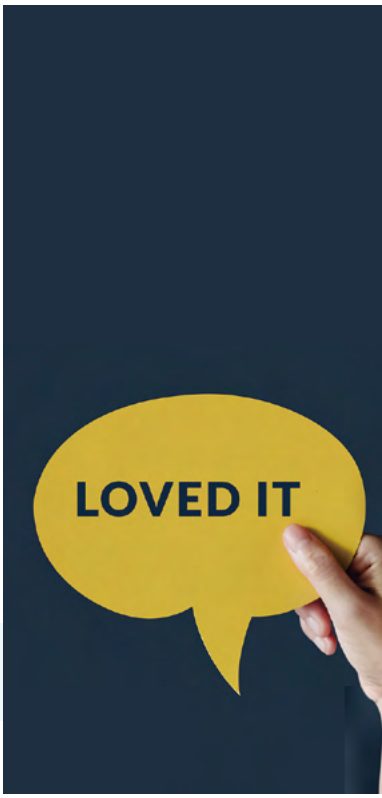
Later, the contents of the system and ways of implementation were specified in the revised *Standardization Law of China* in 2018. A total of 294,991 enterprises have disclosed 1,619,990 standards for 2,774,308 products and services on the platform as of November 1, 2020. As the number of standards increases, challenges emerge such as how to define the boundary of disclosure, how to uniformly manage standards via various channels, improve standards quality and implement post-event supervision. That's why the ESF system is put to use.

ESF refer to product and service standards disclosed by enterprises through self-declaration that have advanced core indicators within a comparable scope in the same industry, and also include products or services that are in line with these standards. ESF are assessed based on the functional or performance indicators specified in those standards. Based on assessment results, there comes a list of enterprises ranking ahead in certain product and service fields, which will be confirmed and released by third-party bodies, making relevant information accessible to consumers.

Compared with the previously released energy efficiency and water efficiency forerunners, ESF system incorporates more evaluation indicators, and covers broader fields including consumer products, equipment and services as well as different operational mechanism. The annual key fields of ESF are released by the government, and the forerunners are released by third-party evaluation bodies and disclosed by CNIS.

So far, the key fields of ESF have been released by SAMR for three consecutive years since 2018, attracting great public attention. However, to strengthen the implementation of the system, CNIS has made great efforts in institutional building, such as the plan on the implementation of ESF and the administrative measures for third-party evaluation bodies. It has also set up the platform on ESF management information (**www.qybzlp.com**) with integrated functions, realizing an effective operational mechanism with the involvement of both government and market.

Such institutional system and big data platform have greatly promoted the ESF system, and the work achievements of 2019 and 2020 have provided strong guidance for the development and evaluation of enterprise standards.



Achievements in 2019

Participation of evaluation bodies

To regulate and lead the evaluation bodies, CNIS formulated the *Regulations on Enterprise Standard Ranking and Management of ESF Evaluation Bodies*. The document specifies the solicitation process, application requirements, evaluation methods, responsibility, supervision and exit mechanism of the evaluation bodies, and lay the foundation for carrying out the evaluation in an open, fair and just way. Meanwhile, the "supervision and exit" mechanism clarifies the responsibility of evaluation bodies and makes the evaluation results more reliable and creditable.

Along with the advancement of ESF work, CNIS carried out the collection, selection, publicity, and release of evaluation solutions and evaluation bodies, and exercised the industrial influence of evaluation bodies in various key fields of products or services. The third-party evaluation bodies of ESF system improved the quality of enterprise standard to a higher level. By the end of October 2019, 53 evaluation bodies submitted ESF lists on the platform. The evaluation bodies shall work jointly or separately but highly coordinate with the enterprise standard evaluation on certain key products or services.

Twelve evaluation bodies in 23 key areas of household appliance released 27 forerunner lists, which accounted for 71% of the total. This fact shows that the household appliance industry bears good foundation of standards, and also reveals the high recognition and enthusiasm of evaluation bodies and enterprises on ESF work. The three evaluation bodies in particular, Vkan Certification & Testing Co., Ltd., CHEARI (Beijing) Certification & Testing Co., Ltd., and CCIC Physical and Chemical Testing Co., Ltd., undertook evaluation work for multiple products and released 27 ranking lists and 14 ESF lists in 2019. They continued to undertake the evaluation work in 2020.

Twelve evaluation bodies in **23** key areas of household appliance released **27** forerunner lists, which accounted for **71%** of the total.

So far, most of the evaluation bodies have followed the principle of "scientific, fair, and just" strictly and are able to select advanced enterprise standards from professional standpoint. They also provide feedback timely to CNIS regarding any evaluation problems. The year 2019 witnessed the start of ESF work, with challenging problems and huge workload and many working steps under exploration. However, the number of solicitation and ranking lists showed a high enthusiasm of third-party evaluation bodies. The evaluation bodies are not allowed to charge fees due to the nonprofit nature of ESF work. For that reason, relevant governments and authorities shall propose precise and practical supporting policies to increase and sustain the participation and enthusiasm of enterprises, and form a long-term operation mechanism.

Reasons for not publishing lists in certain fields

In 2019, in the home building material and raw material field, 11 evaluation bodies of subclass products proposed not to release enterprise standard rankings but only forerunner lists in 2019; certain subclass products didn't release enterprise standard rankings and forerunner lists in the luggage and suitcase, shoes, and elderly service fields; 8 key fields, including diamond circular saw blade, CNC shearing machine, CNC die-cutting machine, and automatic packaging machinery, didn't solicit evaluation bodies and submit evaluation programs. Above situations demonstrated problems and obstacles that the ESF work face in the long run. Upon communication with evaluation bodies, CNIS summarized the following reasons for not releasing enterprise standard ranking list and forerunner lists.

The enterprise standards of certain products are evaluated and ranked by the comprehensive scoring method, which could be effected by subjective factors, instead of the more reasonable comparison and ranking of single core indicator. Some evaluation bodies gave up releasing the rankings hence.

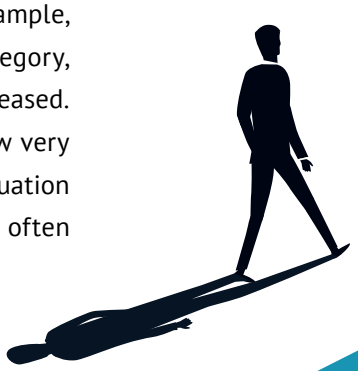
The quality of self-declaration of product enterprise standard is not good.

· With few self-declaration of enterprise standards, or core indicators lower than the threshold required in national or sector standards, no enterprise standard could enter the enterprise standard ranking list or the forerunner list. Taking the titanium alloy wire material in the raw material field as an example, there is only one enterprise standard that could be retrieved from the enterprise standard publication platform and that was converted from the national standard without modification.

· The core indicators of public enterprise standards are not advanced enough. Most of them cited the national standards or industrial standards and cannot form a graded ranking list, therefore failed to reach the forerunner level requested in the evaluation solution.

· Some enterprise standards failed to follow the rules for standards development or cited superseded documents even though they entered the ESF short list. For example, only one company entered the ESF list in the water-based waterproof coating category, however, due to the non-standard numbering of its standard, the ESF list was not released.

· The enterprises shortlisted in the ESF list do not know the ESF system or know very little about it. Due to this reason, enterprises tend to refuse to cooperate with evaluation bodies and are unwilling to provide evidence documents for the evaluation. That often leads to a failure of entering the ESF list.



Challenges in the evaluation work

The problems arising from the enterprise standard ranking and forerunner evaluation work in 2019 are classified into the following six categories.

Information about ranking list and forerunner list filled in the ESF working platform cannot be modified by the users or stored temporarily. Users must communicate with platform managers over and over and ask them to cancel the information so that the users could modify again. The platform often has errors such as delay or failure to upload, or save the draft. And evaluation bodies often face repetitive work when using the platform. It increases the workload of the evaluation bodies and frequency of error. The platform function module shall be improved and maintained to settle the problems.

Some subclass products in the key fields are not the main products of enterprises, and therefore have smaller sales volume. For example, aluminum alloy profiles - anodized profiles have small market demand and improving the accuracy of them will increase the production cost.

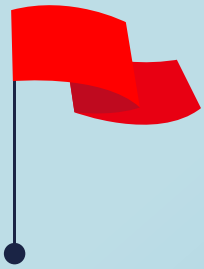
Some enterprises are not familiar with the ESF system. Without enough understanding, certain enterprises enlisted in ESF do not communicate well with the evaluation bodies, and are unwilling to support the ESF work. The credibility of ESF list is weakened hence; some enterprises also fail to enter the ESF list as they did not cooperate on providing evidence materials.

Some enterprise standards failed to follow the rules for standards development or cited superseded documents.

The evaluation of enterprise standard in service fields faces challenges. Comprehensive scoring is often used in enterprise standard evaluation in service field. The service field often applies qualitative description on indicators instead of quantitative description, and therefore it is hard to summarize the quantitative core indicators for ranking and ESF. It remains a problem as to how to effectively evaluate enterprise standard based on indicators.

The ESF system does not cover enough key fields. Regarding the ESF list of 2019, upon communication with the enterprises, CNIS knew that they have strong will to promote their outstanding product types as the forerunners. However, some outstanding product types were not included in the key fields of 2019, or no evaluation bodies undertook the evaluation work for certain key fields. Products accounting for 3% of the sales volume of the leading enterprises became the forerunners instead. The key fields in 2019 only covered 100 product types, far less than the market demand on consumer products and services. The ESF system of 2020 is expected to cover more key fields based on sufficient investigation.

ESF system lacks national supporting policies. Although some provinces and cities introduced regional incentive policies, these policies often bear insufficient strength and lack attraction and supporting implementation measures. The effect of such policies remains to be seen. So far, there are no incentive policies on the national level for ESF work. The regional ESF work to be implemented in Zhejiang and Shanxi provinces is different from national ESF work in terms of mechanism and working method, therefore the consequent independent ranking lists will confuse the market and industries.



Products accounting for **3%** of the sales volume of the leading enterprises became the forerunners.

Outcomes

The ESF promoted the development and publication of enterprise standards. During implementation, it promoted the self-declaration of enterprise standards in relevant fields. Taking the enterprise standard ranking and forerunner evaluation work in financial field as an example, the publication module of enterprise standard in financial service was set on the service platform at the beginning of 2019. Since then, over 770 banks developed and released more than 900 standards on online banking services; 890 banks developed and published over 1,100 standards on bank outlets services. The enterprise standards have become an important measure to manage and supervise the financial service field.

It coordinated with the "random selection and timely disclosure" rule on self-declaration of enterprise standards. During the publicity period of the first batch ESF, the irregular numbering and naming of enterprise standards and references on invalid national or industrial standards were screened out. The check found 14 enterprise standards failing to follow the mandatory standard reference and numbering rules, which were pulled out from the list. Relevant institutions and enterprises were informed. The special attention on checking standard reference, numbering, and naming of standards in financial field ensured that the enterprise standards shortlisted in ESF list are flawless.

It established preliminary influence and social recognition of the ESF system. Over 20 provinces and cities introduced preferential policies for the forerunners so far, including financial incentives of Jinan, Hefei, Zhengzhou and Taiyuan cities, preferential government procurement and financial supporting policies in Beijing and Jiangsu, Shanxi, and Shaanxi provinces, which greatly boosted the enthusiasm of enterprises to participate in the ESF work. Besides, CNIS highly valued the media promotion and training work. Together with over 100 media including China Quality Daily, Economic Daily, and Toutiao.com, CNIS publicized the important milestones and information including key fields, evaluation solutions, ranking list, ESF list, etc. The ESF system has become a theme activity of the World Standards Day, together with over 10 special training on relevant topics. According to the statistics, the media have reported ESF system for over 6,000 times since 2019, which greatly raised the participation of enterprises and recognition among consumers. The atmosphere of "checking the ESF list first before manufacturing and purchase" has formed.

Work progress and effect in 2020

Through the promotion of the ESF system in 2019, relevant working mechanisms have been established with certain social influence. *The Notification for Deepening Business System Reform to Further Relieve Burden and Motivate Vigor of Enterprises*, released by the State Council in September 2020, puts forward "accelerating the cultivation of ESF".

It also advocated optimizing the institutional mechanism of ESF, improving the evaluation programs, facilitating the third-party evaluation bodies to release the ranking list of enterprise standards and form the list of ESF in 2020, as well as guiding more enterprises to disclose standards with higher quality.

To normalize the evaluation of enterprise standards and ensure the smooth publication of the list of ESF, several work priorities have been completed in 2020, such as improving evaluation mechanism, proposing and promoting a series of standards, upgrading the platform of ESF management information as well as publicity and training work.

Improving evaluation mechanism

In view of the different understanding about the key fields in various departments and the ever increasing work scope of ESF, GB/T 4754-2017, *Industrial classification for national economic activities*, was taken as a reference for the collection, evaluation and publication of the key fields of ESF in 2020.

To further improve the evaluation mechanism of ESF, the guidelines for compilation of ranking lists of enterprise standards and forerunner evaluation programs and two cases were provided during the program collection work in 2020. More than 250 evaluation programs from over 90 organizations were enrolled in the first batch of evaluation programs and evaluation bodies of ESF, and the list was released on November 2, 2020.

The list of ESF in 2020 compiled by over 70 evaluation bodies were announced in December 2020, which included more than 450 enterprise standards from over 320 enterprises, covering over 150 categories of products and services.

The enrolled enterprises will be offered the certificate of ESF with QR code for standard information. Besides, they can download the label of forerunner information, which is composed of forerunner logo, QR code as well as product and standard information.

With the implementation of the ESF system, its scope has constantly been expanded, together with improved evaluation mechanism of enterprise standards and upgraded capability of third-party bodies, so as to realize the steady and sound operation of the ESF system.

Proposing and promoting a series of standards

A series of association standards on ESF evaluation were proposed in 2020 to solve the problems in comparison and evaluation of enterprise standards, such as low level of enterprise standards development and disclosure, different evaluation methods and requirements at national and local levels, and less remarkable effect without policy support.

To practically exert the guiding role of enterprise standards in quality improvement, the Sub-institute of Resources and Environment Research in CNIS started to develop standards in joint hands with related industry associations, testing and certification bodies, standardization service organizations and enterprises.

The standards consist of T/CAQP 015-2020, *General rules for drafting enterprise forerunner standards*, and relevant standards on forerunners in specific categories of products and services. These standards are applicable for guiding the standards development in enterprises, the evaluation of enterprise standards, and the work of third-party evaluation bodies.

At present, there are 100 standards under development, which will define the basic requirements of enterprises for specific products or services, indicator system of product or service standards as well as the evaluation of forerunner standards.

The standards will integrate with related policies such as the ESF system and the special action on standards comparison and compliance in 10,000+ enterprises in 1,000+ industries from 100+ cities, so as to jointly support the supply of advanced enterprise standards and their high-quality development.

Upgrading the platform of ESF management information

In 2020, CNIS upgraded the platform on ESF management information (**www.qybzlp.com**) due to the limitations found in 2019, for example organizations fail to add new product categories, experts cannot evaluate programs online, and enterprises cannot apply for the certificate with seal and the label of forerunner information.

With great efforts in short time, the platform has been integrated with nine functional columns including key fields, evaluation bodies, ranking lists and forerunners. It can provide services and operational instructions to various parties such as operating body, evaluation bodies, experts and enterprises.

As the operating body, CNIS can approve the registration of organizations, review the format of programs, collect the review opinions of experts as well as announce and release the evaluation programs, ranking list of enterprise standards and list of ESF.

Evaluation bodies can apply for the product category evaluation, submit their evaluation programs, as well as submit and release the ranking list of enterprise standards and list of ESF. Experts can review the evaluation programs and submit the review conclusion and opinions, while enrolled enterprises can register and apply for the label of forerunner information.

Publicity and training work

To publicize the ESF system, CNIS organized four training sessions on ranking lists of enterprise standards and forerunner evaluation programs in virtual form within a month after the key fields of ESF in 2020 was announced on August 20, 2020.

In these training, experts interpreted the related content in five aspects such as ESF and key fields in 2020, requirements for compiling the ESF evaluation programs, enterprise standardization work and series of association standards on forerunner, the list of ESF and operation of the platform on ESF management information, as well as the national service platform of enterprise standards information and its usage.

The training was rapidly responded with great support, and was attended by more than 1,000 people from associations, testing organizations and enterprises. Besides, CNIS has specially compiled the cases of evaluation programs for the reference of various parties, helped evaluation bodies understand the scheme of enterprise standards comparison and evaluation and established scientific and reasonable evaluation programs that comply with relevant requirements.

For the future five years, CNIS proposed several suggestions on promoting the ESF system, such as establishing the system of advanced standards supply and implementing inner circulation, constructing the evaluation technical system with ESF standards as uniform basis and improving the political system for high-quality development of products and services.

Future prospects and challenges

Reform and innovation is the fundamental driving force for the development of Chinese society. Since 2019, SAMR has established the ESF system and released lists of ESF for two consecutive years. It promoted innovation in high-tech industries with high standards, facilitated high-level opening, and led high-quality development of industries. Under the impact of the epidemic in 2020, by optimizing the system and mechanism, improving the work platform, and strengthening online publicity, the ESF system doubled its coverage in key areas, attracting more agencies and enterprises. At the meantime, it continued to introduce incentive policies, which greatly expanded the influence of the system and manifested the power of forerunners. The effectiveness of standards in leading high-quality development and meeting the needs of consumption upgrading has become increasingly prominent.

Growing significance

It supports the improvement in standard and quality in key consumer goods and services. Since implementation, the ESF system covered thousands of products and services in over 180 industries in the two years.

As industrial benchmark, the forerunners brought “catfish effect” to industries and promoted the improvement in standard publication and quality simultaneously. In the finance industry, for example, over 3,000 banks and financial institutions participated in the ESF application and evaluation work in two years, who developed and published over 5,000 new enterprise standards in total. Higher standard brings better quality. The awareness of standardization among financial enterprises has been promoted greatly. It also pushed financial forerunners such as China Construction Bank to perfect their enterprise standard system for financial service and implement the system in all outlets nationwide, which effectively improved the service of financial industry for the substantial economy and their ability against financial risk.

It promoted the innovation in enterprises and their brand building. Standard is a rigid constraint on quality, and an important factor in market competition. Seventy percent of the shortlisted ESF enterprises are private companies or companies invested by private capital, which serve as the most vigorous power in market with the strongest pioneering spirit and innovation ability. By taking part in the ESF work, gazelle companies and hidden champions in the industries obtained greater publicity and promotion for their brands as well as the channel to participate in developing national and international standards. Unicorn companies could maintain their advantageous position by constant innovation. Midea, for example, added self-cleaning indicators that meet anti-epidemic demand in their enterprise standard on air conditioner, which entered the 2020 ESF list. The target led the innovation of air conditioner industry to a new path.

While promoting the active participation of enterprises into the ESF work, the system gave direct guidance to the implementation of standardization in enterprises as well. Combing the strengths of enterprise standards and association standards in 2020, CNIS proposed the series of ESF association standards based on enterprise standard evaluation work, which provided basis for the development and evaluation of enterprise standard based on different indicators and grading. Various associations, institutions, and enterprises participated in the development of association standards series, and helped the revision of enterprise standards.

It led the direction of market resource allocation and the choice of consumers. The ultimate goal of ESF work is to facilitate the effective supply of medium and high end products and services, satisfy people's demand for better life, and increase their confidence in product quality. Currently, many provinces and cities implemented cultivating schemes and incentive policies on the forerunners and therefore make them gain more strengths. Platform companies such as Suning and Alibaba set up dedicated sections for the standard forerunners successively so as to promote the market share of advanced products and services. Shortlisted forerunners are allowed to put ESF label and QR code on relevant products, and consumers could obtain information on standard by scanning the QR code. Showing the important quality indicator, the ESF label presents the sorting and comparison information of the core content of enterprise standard. To the customers, it is the carrier of product and service information, and a tool to implement their right of overseeing. The standards shall become the key to directing the allocation of market resources and the consumer decision.

Challenges

Incomplete coverage of enterprise standards compared and evaluated. The ESF work now is only limited to the enterprise standards published on the public platform on enterprise standard information. Since there are other platforms and channels that enterprises could put their standards on, it is impossible to cover all relevant enterprise standards.

Inadequate motivation for institutions and enterprises. ESF work is nonprofit and would not allow the evaluation participants to charge fees. However, there are deviations in the implementation of ESF establishment and supporting policies in different regions. Forerunners' products and services lack market promotion and publicity. Without a strong sense of gain, local enterprises and industries certainly have low interest in participating in the ESF work.

Lack of overall coordination of ESF work on national and regional levels. The co-existence of separate national forerunners and provincial forerunners remains a problem in the ESF system. The implementation and evaluation of provincial forerunners are different from the selection on the national level, therefore it will confuse the customers and the market with separate lists and affect the credibility of the ESF system.

Incomplete mechanism to transform the ESF standards to international ones. So far, ESF work has successfully transformed enterprise standards to association standards. However, the channel to internationalize ESF standards is still under exploration.

Future countermeasures

The first countermeasure is to complete the selection mechanism of key areas. In order to implement the strategic targets and significant tasks in the 14th Five-Year Plan Period, and to fulfill the demand of constructing a new development pattern and promoting high-quality development, CNIS shall establish a more scientific and reasonable procedure to determine the key areas to implement the ESF system based on a flexible and timely adjusting mechanism, to meet departmental, regional, and social needs.

The second is to utilize the leading role of evaluation bodies. As the main force to carry out the enterprise standard ranking work and ESF evaluation, the third-party evaluation bodies are expected to play their role in formulating the evaluation program, evaluating enterprise standards and forming the ranking list and ESF lists. They are also encouraged to provide consulting services for enterprises in building up standardization capability.

The third is to fully utilize the ESF association standards. ESF standards will be promoted persistently. Industries and local institutions are encouraged to transform evaluated, advanced enterprise standards to ESF association standards, so as to provide basis for enterprise standard evaluation on national and regional levels. The enterprises are also encouraged to benchmark with the forerunners so as to improve the level of their enterprise standards.

The fourth is to establish complete and sound forerunner incentive policies. It is necessary to establish a government procurement mechanism that favors high quality products or services represented by the forerunners. In the selection of winners of standards innovation award, government quality awards, brand value, etc., the ESF results shall be adopted to establish quality models and promote quality products. Government departments on each level, e-commerce and large shopping platforms shall admit ESF evaluation results, strengthen their promotion, and improve market recognition of high quality products and services, therefore bringing a sense of gain and substantial benefits to the forerunners. The market supervision departments shall be mobilized to cultivate more forerunners, make more companies reach the benchmark, and accelerate the grading of product and service quality.

The fifth is to implement better supervision and management of the forerunners. The market supervision departments on each level shall supervise forerunners' product quality by random inspection and urge the products that no longer meet ESF standards to exit. It is required to keep a smooth supervision channel and utilize the surveillance function of the media and consumers, and promote the full life cycle supervision, so as to ensure the authenticity and credibility of ESF.

The last is to promote the internationalization of ESF. A green channel to assist the ESF standards to enter the international stage shall be created. ESF enterprises are encouraged and supported to propose international standards projects, and to lead the work on developing relevant international standards.

(source: CNIS)

Protecting our privacy in smart cities

Cloud computing, the Internet of Things, mobile networks and artificial intelligence are just some of the tools cities use to increase efficiency and improve the quality of life of their citizens, yet they also expose us to risks and vulnerabilities related to personal privacy and security. Solutions and standards abound, but they are not always easy to navigate when the systems and interconnections are as complex as the stakeholders are many. A new technical specification has just been published that aims to help.

ISO/IEC TS 27570, *Privacy protection–Privacy guidelines for smart cities*, provides recommendations and guidance on the management of privacy and on the use of supporting standards. The document takes a multiple-agency as well as a citizen-centric viewpoint and provides guidance on how privacy standards can be used at a global level and at an organizational level for the benefit of citizens.

(Source: ISO)

New ITU Focus Group to stimulate interdisciplinary collaboration

In close collaboration with the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), the ITU Focus Group on AI for natural disaster management will support global efforts to improve our understanding and modelling of natural hazards and disasters. It will distill emerging best practices to develop a roadmap for international action in AI for natural disaster management.

The Focus Group's work will pay particular attention to the needs of vulnerable and resource-constrained regions. It will make special effort to support the participation of the countries shown to be most acutely impacted by natural disasters, notably small island developing states (SIDS) and low-income countries.

(Source: ITU)

EN 17444 on doping prevention: the first European standard to guarantee a safe sports nutrition market

The European Committee for Standardization (CEN) is proud to announce the publication of EN 17444, *Doping prevention in sport–Good development and manufacturing practices aimed at preventing the presence of prohibited substances in food intended for sportspeople and food supplements*.

This new CEN standard will harmonize the development and manufacturing practices to guarantee safe European sports nutrition and a safe food supplements market and provide consumers with the ability to identify products that comply with the standard, through relevant labelling information. The publication of this first-ever European standard on doping is a key milestone to improve consumer's information on doping in sports nutrition across Europe and respond to athletes' demand for reliable nutritional products.

(Source: CEN-CENELEC)

New electric vehicle standards to advance UK battery manufacturing in support of cleaner transport

BSI has published two standards PAS 7060, *Electric vehicles–Safe and environmentally-conscious design and use of batteries–Guide*, and PAS 7062, *Electric vehicle battery cells–Health and safety, environmental and quality management considerations in cell manufacturing and finished cell–Code of practice*, to help support the UK's electric vehicle capability.

The new standards underpin innovation and enable consistent practices in the production of batteries and the development of battery technology with guidance on health, safety and environmental considerations in battery manufacturing and use. They will support the industry by providing good practice and efficiencies as it works towards its self-sufficient battery manufacturing target in 2035, whilst supporting UK's wider transport decarbonization and Net Zero by 2050 ambitions.

(Source: BSI)

ETSI IoT Week 2021

Virtual: April 26-30

This year's edition will focus on the major IoT standards achievements that further support the digitalization of society across numerous vertical sectors. The event will include: a tutorial on IoT semantics and ontologies: from data sharing to information sharing using oneM2M, ETSI SAREF and the Semantic Portal, and a series of half-day sessions dedicated to:

· oneM2M: Service Experiences and Best Practices

· IoT in the Face of the Pandemic: Digitalization and Countermeasures;

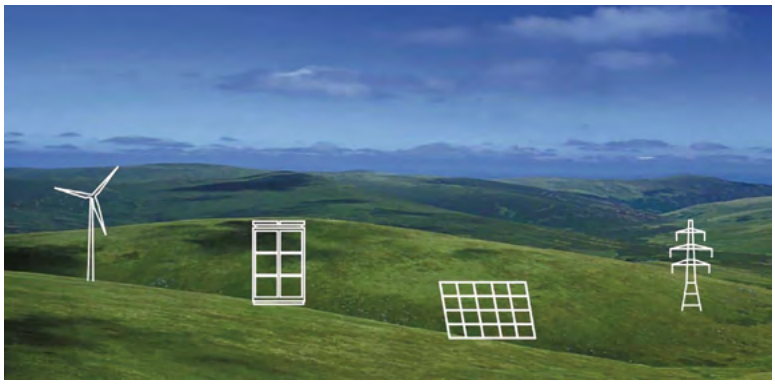
· IoT Cybersecurity: Consumers, Smart Cities, e-Health and SMEs: the Standards

· Artificial Intelligence in IoT: AI Adoption and the Standards

For more information on the event website: **https://www.etsi.org/events/1801-etsi-iot-week-2021**

The 14th Energy Storage World Forum

Virtual: May 19-21



Join the event:

· Gain insight from over 24 utilities including VATTENFALL, EDF, E.ON, UK POWER NETWORKS, ENEL, EVOLVERE, VIESGO, ENGIE, WEMAG, TENNET and many others

· 2 Streams covering Residential, Large-Scale and C&I Applications

· 50+ international speakers, 3 Panel Discussions to provide you with ample opportunities to get your problems solved

· New topics on Virtual Power Plant, Peer-to-Peer Trade, Decarbonisation, Blockchain Technology, Hydrogen Storage, amongst others

For more information on the event website: **https://energystorageforum.com**

Vienna Energy Forum 2021

July 6-7, Vienna, Austria

The Vienna Energy Forum (VEF) is a biennial global, multi-stakeholder forum with the objective of exploring developmental challenges within the realm of sustainable energy.

The Forum gathers leaders from governments, civil society, international organizations and the private sector, in an aim to push the development of inclusive and sustainable solutions across the globe.

For more information on the event website: **https://www.viennaenergyforum.org/blog**

Joint 2021 IEEE International Symposium on EMC+SIPI and EMC Europe

Virtual: July 27-August 13

2021 Joint IEEE International Symposium on Electromagnetic Compatibility, Signal & Power Integrity, and EMC Europe leads the industry in providing state-of-the-art education on EMC and Signal Integrity and Power Integrity techniques.

The Symposium will feature technical sessions, interactive workshops/tutorials, standards sessions, experiments and demonstrations, virtual technical exhibition and virtual social networking events.

For more information on the event website: **https://www.emc2021.emcss.org**

STANDARDS STORY

BETTER COMMUNICATION | GREATER VALUE

From a beginner to IEC 1906 Award winner

从标准化新人到IEC 1906奖获得者

我与标准22年的故事

By Qiao Mingsheng

乔明胜

When the IEC 1906 award certificate arrived at my office on the morning of December 1, 2020, I felt very excited even though I had been notified six weeks ago during the IEC/TC 110 plenary meeting.

Story began two decades ago

I've involved in standardization work for almost 22 years. My first job was a R&D engineer in Hisense, a well-known Chinese TV manufacturer headquartered in Qingdao. My first contact with standardization work started when I tried to pass the standardization examination of the first circuit diagram drafted by myself as a beginner. The standardization examination and the related standard gave me a strong impression. I had a hunch that standardization work would have a great effect on my career. Standardization is the foundation of technology research and development, especially for me, a research and development engineer for more than 20 years.

I formally drafted a standard for the first time in 1999, after working in Hisense for one year. It is the internal specification for a set-top-box product. I felt very excited when the standard passed all examinations and was published as an enterprise standard, even much more excited than 20 years later when I won the IEC 1906 award.

But what followed made me very disappointed, for I was told that the method for the image quality evaluation referenced from another standard could not be used without any modification in my set-top-box product. That meant my first standard should be revised. This taught me a very big lesson. We must check the standard carefully before it is published, especially the scope and the methods referenced from other standards, to see whether they are applicable to the current standardization objects.

In 2004, I joined the National Display Standards Working Group, which later became a national technical committee SAC/TC 547 in 2014, and began to participate in the discussion and revision of national standards. I realized that there are great differences between national standards and enterprise standards. Enterprise standards focus on the achievement and

evaluation of the performance and functions of enterprises' own products, while national standards need to coordinate matters related to this standard in the whole country. Coordination, consensus and balancing the interests of all parties are very important principles for the development of national and international standards. I realized this at the beginning of participating in the working group on display standards. Thus, when I participated in the development of laser display standards in IEC/TC 110/WG 10, I tried my best to coordinate and reach consensus, which almost became my main work in WG 10 three years before I won the IEC 1906 award. It also took a lot of my spare time.

IEC 62906-5-1, *Optical measurement method for laser front projection*, a project of WG 10 started since 2015, was led by Chinese experts. It failed to pass the CDV at the end of 2017 because experts from several countries disagreed with the measurement method of color light output and color gamut volume. In order to resolve this dispute, WG 10 has held at least 20 meetings since 2018, including 12 WG meetings and 8 task force meetings. I convened all 8 task force meetings and presided over the discussion about the standard in most WG meetings.

The contents of CLO and CGV methods in the original draft standard were very clear. Other working groups of TC 110 also had standards using similar methods. However, some experts insisted that some of these methods may mislead users in laser display. In order to reach consensus, we made great efforts to add a lot of technical explanations and supporting information in the standard. The discussion of these explanations was word by word, sometimes it might take a long time to argue about a word. As the convener, I need to pay attention to the discussion process at any time. When there was a dispute, I needed to guide them to find an agreed solution. At the same time, we needed to make a good record of the meeting. Sometimes, if the problem could not be solved that day, we needed to discuss it again at the next meeting. In a word, the work is very tedious, as it needs great patience and coordination. After nearly three years of efforts, the agreed draft was finally resubmitted to IEC for CDV at the end of last year. I hope it can be approved this time.

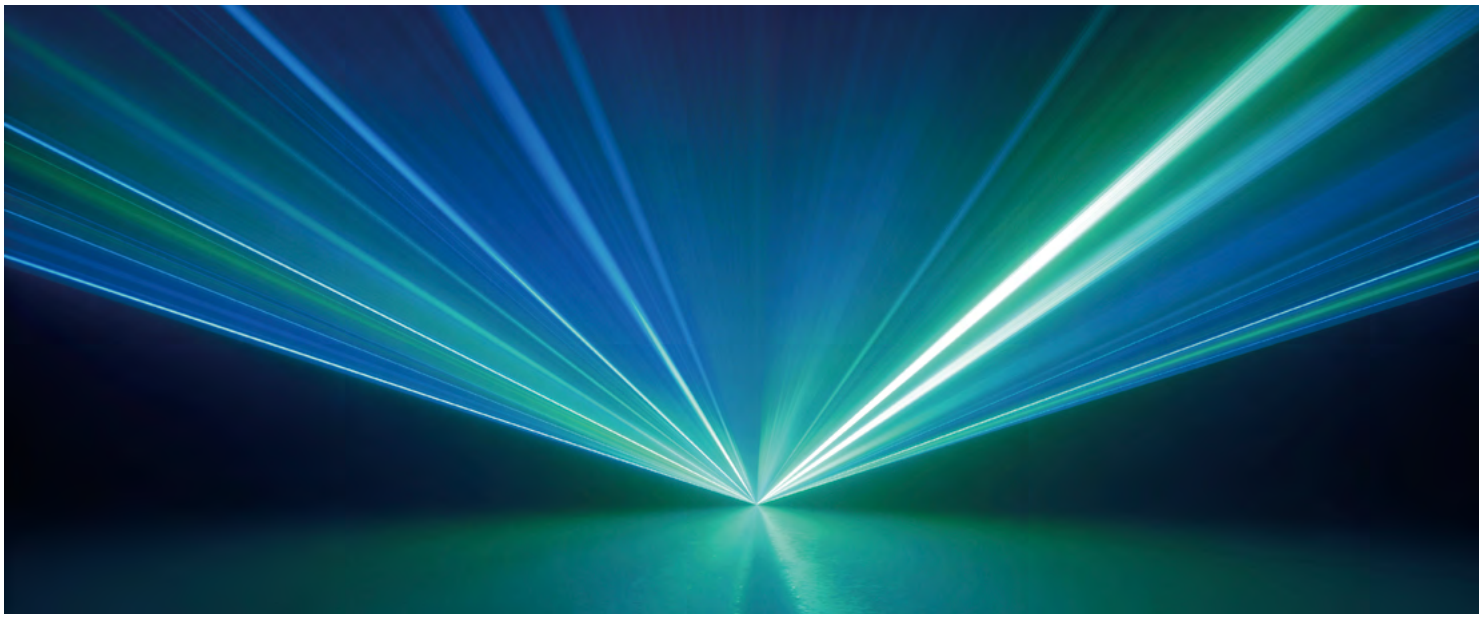
Reaping benefits

Despite the standardization work is time consuming, it has great benefits and influence on my career.

By participating in the standard discussion, I have a deeper understanding of the development of related technology fields, which is very helpful for me to know the technology development trend and plan the new technology direction in the R & D work.

Systematic thinking. In the development and revision of standards, you need to systematically analyze, explain and construct the characteristics and methods of a certain product or technology field. When entering an unfamiliar field, it is very helpful to systematically study the related terms, definitions and methods standards for a quick understanding of the technology in this field.

Good documentation and reporting abilities. The process of standard development and revision, especially the manual writing of standard documents, you could deeply understand the standard requirements for the format and expression of technical documents, and also help to write other documents.



Suggestions for beginners

Good communication skills and open mind. In international standardization activities, the ability of communicating with others in English is the basic requirement, but it does not mean that speaking English is everything. When joining in any new standards organization, we should learn some professional terms, idioms for discussing problems with other experts, and even some default specific ways of communication. Only by mastering these could we really integrate into the organization, fully understand other people's ideas, and freely express our own views. We should be good at listening to different opinions, leaving room for maneuver.

Technical capability in the related field also determines the depth of participating in the standardization activities. Therefore, to participate in the standardization activities, we should first make full use of our technical advantages, and at the same time analyze the standard architecture and grand map of the relevant standards in this field, so as to find our own position in this field.

Respect the work and living habits of experts from different countries and regions, and make friends with them. It is also very important for participating in international standardization activities.

About the author:

Qiao Mingsheng, Technology Development Director of Wintech-nano,
member of IEC/TC 110, TC 100, TC 113, and Acting Convenor of IEC/TC 110/WG 10

中国标准化杂志社
China Standardization Press

CHINA STANDARDIZATION

Created in 2004, *China Standardization* is a well-designed bimonthly in English under the administration of SAMR and instruction of SAC. As one of the five official publications by China Standardization Press, the journal is jointly sponsored by CAS and CNIS. So far, it is the exclusive English magazine in the standardization field, enjoying a global readership and connection with international/regional organizations for standardization and foreign standardization institutes.

Dedicated to the communication of standards value and practice in China, the journal presents a full picture of dynamics and progress of standardization nationwide while keeping an eye on the standardization frontiers and topical areas of the international community, through its elaborately designed columns on news, interviews, researches and practices, etc.

The journal is published both domestically and internationally, committed to providing an open platform for standards partners and professionals from around the globe and bridging the information and academic gap for the standards arena.

We encourage government and industry leaders, experts, all stakeholders concerned from China and the whole world to share their insights and truly contribute to making standards a common world language.

For more information, please visit our website: www.cspress.cn

CHINA STANDARDIZATION

- Access to authoritative information about China's standardization
- Provide a platform for free communication and exchange

SUBSCRIBE NOW

Tel: +86 10 5771 1697 Email: caoxx@cnis.ac.cn
Add: NO.51 Tiantong Zhongyuan, Changping District, Beijing China 102218

ISSN 1672-5700
03
9 771672 570214

Overseas Distributor: China International Book Trading Corporation
Distribution No: BM5708
Postal Subscription Number: 80-136
Price: $30.00 ¥50.00