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Outlook for China's standardization

变革与创新

中国标准化展望

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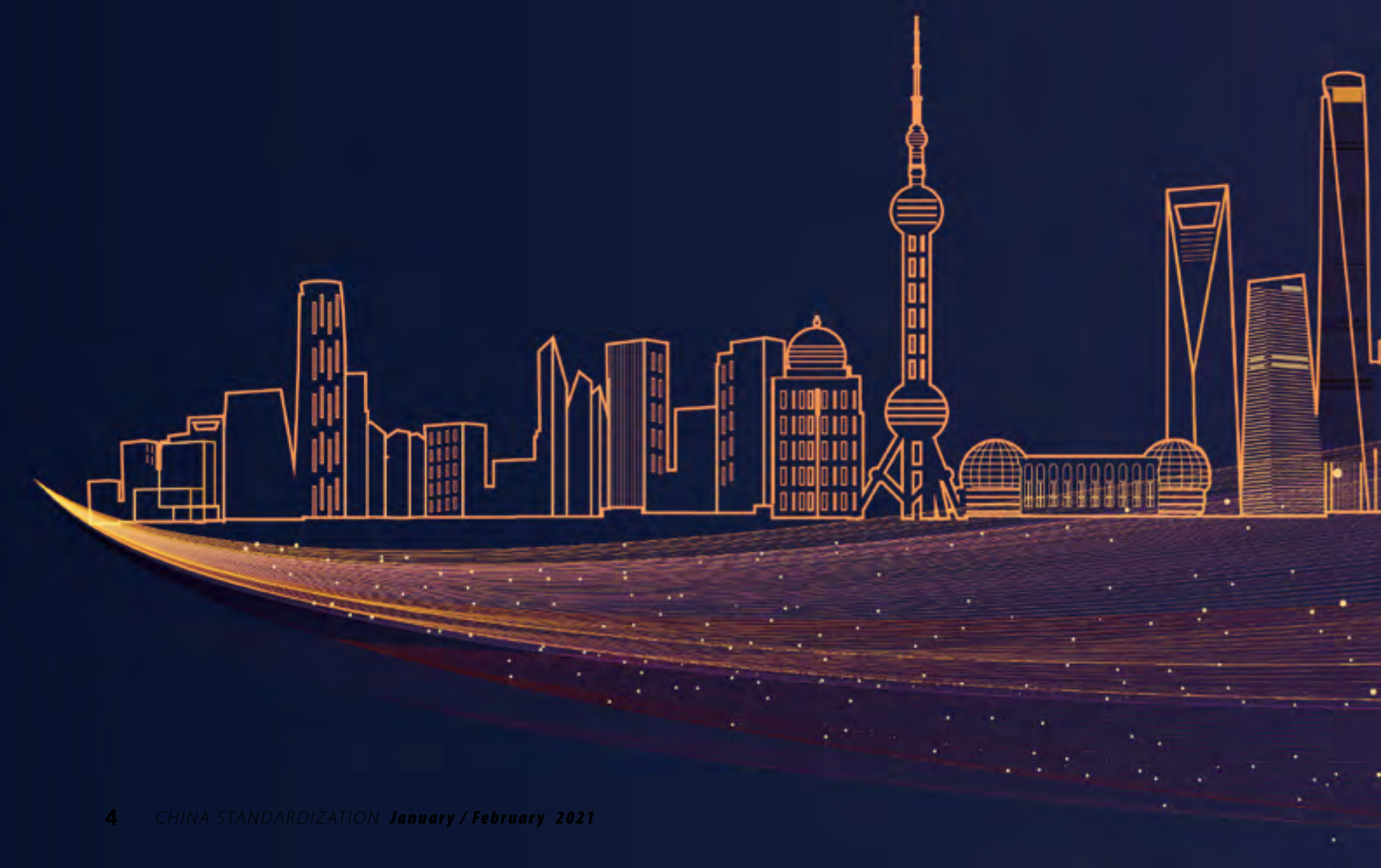
Changes, innovation & standards



This year is crucially important for China, as it is the start of the 14th Five-Year Plan period (2021-2025). China is seeking new ways to recover from the impact of the coronavirus and address ever-changing global politics and economy. The Central Government has decided to establish a new development pattern featuring dual circulation, in which domestic market and overseas market reinforce each other, with the former as the mainstay.

Facing these changes and uncertainties, will China successfully address political and social revolutions? Why innovation and standards are so important? What is the future direction for the standardization work?

To find answers, CSP has interviewed five renowned standardization experts to share their insights into China's standardization work, including Ji Zhengkun, Member of Advisory Committee on Manufacturing Power Strategy Development, Lang Zhizheng, Consultant of China Standardization Expert Committee, Zhang Xiaogang, former ISO President, Song Mingshun, President of China Jiliang University, and Ma Dejun, Vice President of China Household Electrical Appliance Research Institute.

"Innovation is the only way to adapt to the new situation and new pattern...We need innovation to keep pace with the times and realize high-quality development," Ji Zhengkun reiterated the importance of innovation at present and in the future.

"Standards become unprecedentedly important...We hope that China's successful experience can provide the world with effective solutions by using standards," Zhang Xiaogang emphasized the vital role of standards in addressing changes and China's willingness to contribute to the world.

In the SPECIAL REPORT column, we present the journey of CSP in the past decade on the occasion of its 10th anniversary and congratulatory messages from leaders like SAMR Vice-Minister and SAC Administrator Tian Shihong and our international partners such as ISO, CEN and CENELEC and ASTM International. We sincerely appreciate the contributions of all the partners to our success!

HEADLINE |

Enterprise standard forerunners for 2020 announced

With the collaborative efforts of China National Institute of Standardization (CNIS) and related industry associations, 2020 Annual Summit of Enterprise Standard Forerunner was held on December 19, 2020 in Beijing, to show the latest progress in implementing the enterprise standard forerunner system.

The system was initiated in 2018 by SAMR in collaboration with seven departments and commissions, in an aim to support the national strategy of building China into a great power of quality, promote high-quality development of industries and guide enterprises' transformation and upgrading. CNIS has undertaken the assessment and announcement of the forerunners since then, working actively to increase public awareness and extend influence of the system.

The event was addressed by Cui Gang, Director-General of Standards Innovative Management Department of SAMR, and attended by Liu Hongsheng, CNIS President. Zhang Xiaogang, former ISO President, delivered a keynote speech. Qiu Yueming, CNIS Vice President, presided over the event.

Ten industry associations including China Petroleum and Chemical Industry Association released one hundred forerunner standards and a joint initiative. Seventy-six assessment bodies announced the first list of forerunners for 2020, including 154 kinds of products/services, 331 enterprises and 453 standards. The event also kicked off the development of the first batch of association standards to support the implementation of the system in 2021.

Another highlight of the Summit was the session of sharing experience in implementing the system, bringing together representatives from local administration for market regulation, assessment and test bodies, industry associations, leading enterprises and renowned e-commerce companies.

Please visit the official website of Enterprise Standard Forerunner Platform (**http://www.qybzlp.com**) to see the full list of the forerunners for 2020.

Enhanced management of eco-environment standards

The Ministry of Ecology and Environment recently issued the *Administrative Measures for Eco-environment Standards* to be enforced on February 2, 2021, to adapt to new requirements for environmental management, with the promulgation of revised *Environmental Protection Law, Standardization Law of China* and other laws and regulations.

The Measures puts forward the general guidelines and direction for China's eco-environment standardization work in the new era. Major revisions include improving the standards system and standards categorization; adjusting the positioning of the role of standards in each category and development principles; specifying requirements for standards implementation; local standardization work; and adding regulations on the assessment of standards implementation and information disclosure.

Key areas for adopting international standards in national standards

SAC issued the 2020 version of the *Guide for Adopting International Standards in National Standards* in late November of 2020, identifying the key areas where national standards can be scheduled for development and revision based on advanced international standards.

Eight key areas include agriculture and food, consumer products, equipment manufacturing, information technology and electric power, new materials, service sector, social administration and public service, as well as energy and resources. The aim is to support major national strategies, promoting the Belt and Road Initiative, responding to major public events, meeting export and import demand, and helping create a new "dual circulation" development pattern.

Related departments and technical committees are also required to take proactive actions in supporting the adoption of advanced international standards in national standards.

Standardizing financial informationization

The National Standardization Working Group for Financial Informationization was set up to guide and support standardization work in the area. SAMR Vice-Minister and SAC Administrator Tian Shihong and Vice Minister of Finance Xu Hongcai addressed the inaugural meeting held virtually on December 29, 2020. More than 50 experts including director, deputy director and secretary of the working group attended the event.

The working group will serve as a useful platform for promoting connectivity, coordination and exchanges in financial management and informationization, said Tian.

SAC/SWG 18 on baby & children products established

The inauguration meeting together with the annual meeting of National Standardization Working Group on Baby & Children Products (SAC/SWG 18) was held on December 22, 2020 in Guangzhou. The event was addressed by Chen Hongjun, Deputy Director-General of Standards Technical Management Department of SAMR, and attended by some 200 representatives from MIIT, General Administration of Customs, China National Light Industry Council, relevant industries, etc.

China boasts more than 20,000 manufacturers of baby & children's products, with annual output and export exceeding RMB 650 billion and USD 50 billion respectively. People now have increasing and stricter requirements for the category, function, quality and safety of those products, which presents urgent needs for standards for the cross-sector industry that involves multiple disciplines. SAC/SWG 18, which integrated nearly 20 conventional sectors such as textiles and coating materials, was established just in time, pointed out Chen.

He stressed the future priorities of the working group, including improving standards system for baby & children products, establishing coordination and management mechanism for the cross-sector, interdisciplinary industry, actively participating in international standardization activities, and enhancing standards publicity.

Improving the quality of water and air by standards

The Ministry of Ecology and Environment recently released 15 new national standards on environmental protection in response to the needs of social and economic development and eco-environmental regulation.

Specifications for environmental monitoring of groundwater and coastal waters will be more harmonized with the implementation of HJ 164-2020, HJ 442. (1-10)-2020 and other 9 newly published standards in the area, helping strengthen monitoring. HJ 1147-2020 and HJ 1150-2020 will help improve the determination of basic water quality indexes and monitoring of specific water pollutants. HJ 1153-2020 and HJ 1154-2020 are aimed at promoting coordinated control of fine particulate matters (PM 2.5) and ozone and standardizing the monitoring of volatile organic components.

Those standards will help guide the technological development of air, water, groundwater and offshore waters monitoring, improve the quality of eco-environment monitoring data and support eco-environment management, thereby contributing to the fight against pollution.

An overall picture of China's association standards

The 2020 Report on the Development of Association Standards, a book written by CNIS was published in November, which made an objective overview of the status quo, highlights and results of association standards development in China.

The Report encompasses association standards policies issued in 2018 and 2019 and provides a clear picture of standards development based on the data that have been released so far on the National Platform of Association Standards Information. It also selects 14 associations from the Platform who have actively participated in association standards activities to uncover their strengths.

On the other hand, the document provides case studies of association standards carefully chosen from the fields of automotive aftermarket, electric motor, green manufacturing, intelligent transport and others to vividly describe good experience and practices in the development, release and implementation of association standards.

Natural resources monitoring to be improved

The Ministry of Natural Resources issued the *Standards System for the Investigation and Monitoring of Natural Resources (Trial)* on January 1, 2021. Taking into full account of the existing standards in the fields of land, minerals, forest, grassland, waters, wetland and oceans, the Standards System penetrates the whole process of natural resources investigation and monitoring.

The document classifies standards into 5 categories from the aspects of general use, investigation, monitoring, analysis and assessment, as well as results and application. It lays out national and sector standards that are to be developed within 3 years and those that have been released or are under development, and future trends of standardization demands in the area.

New platform established to enhance GBA cooperation

The first Association Standards Service Platform for Promoting Technological Innovation in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) was launched at the GBA Innovation and Cooperation Meeting taking place on December 2, 2020 in Nansha District of Guangzhou.

The Platform was developed with the joint efforts of Nansha District Bureau for Market Regulation, CNIS and Guangzhou Institute of Standardization, to promote mutual recognition of association standards and explore a new pattern for greater industrial connectivity among the three regions.

Several associations from the three regions have jointly released an association standard on product tracking management based on blockchain technology, the first GBA association standard. The Area also published the mosaic terminology of precious metal adornment, a uniform specification for mosaic processing to enhance industrial cooperation among the three regions.

At present, more than 150 associations and enterprises have been registered at the Platform and are actively working on more than 20 joint association standards in such fields as artificial intelligence, 3D printing, services, and agriculture.

Probe into global connectivity of city brain

More cities across the world have embarked on the planning and construction of city brain since the concept was first proposed by Hangzhou in 2016. The hotspot even attracts increasing worldwide attention, with the advance of 5G, big data, artificial intelligence, blockchain, new infrastructure, etc.

However, the research on city brain is isolated among different cities, regions, industries, departments and enterprises, like islands separated from each other. For example, a garbage truck of one city loses the trail once entering another city. Therefore, global standards are in desperate need to enhance the connectivity of city brains and help foster a worldwide nervous system for the brain, which is the problem the Global Standards Research Group for City Brain (WWNS-R) endeavors to resolve.

WWNS-R has released the first report on global standards on city brain in late December of 2020 in Beijing, in joint hands with Virtual Economy and Data Science Research Center of CAS, Digital Governance Research Center of China Institute for Innovation & Development Strategy, TIFO Big Data Institute, and Womin Hi-tech Company.

Based on the internet brain model created by CAS, the report proposes nine research directions for developing global standards on city brain. City brain is not limited to one city, one region or one country, according to Liu Feng, lead writer of the report and member of the research group at Virtual Economy and Data Science Research Center. Standards ensure city brain across the world be connected.

Please visit **http://www.wwns-r.org** to read the full report.

HIGHLIGHTS |

2020 International Standards Summit held in Beijing

The 2020 International Standards Summit, organized by Chinese Society for Electrical Engineering (CSEE), was held on December 6 in Beijing.

Themed on "focusing on standardization strategy and leading high-quality development", the summit gathered experts to discuss hot issues in the standardization field, which was expected to play a key role in facilitating the technical progress in China to be geared to international standards and promoting the harmonization of Chinese and international standards. The Secretary Generals of IEC, ISO and ITU sent video messages.

China should further enhance the leading role of standards, facilitate the deep integration of industry-university-research institute-user cooperation, realize the synchronous development of technical innovation and international standards, improve the coordinated development system of standards and certification as well as strengthen the cultivation of international standardization talents, so as to drive high-tech innovation, high-level openness and high-quality development with stricter standards, said CSEE President Dr. Shu Yinbiao, who is also President of IEC, Academician of Chinese Academy of Engineering as well as Chairman of the Board of China Huaneng Group.

Experts from research institutes, energy enterprises and standardization institutes gave keynote speeches. And participants held heated discussions on the hot topics including standards promoting energy transformation, international standardization trends and political analysis as well as conformity assessment driving industrial transformation.

A Joint Initiative Declaration was announced by CSEE and relevant standardization organizations to further implement the national standardization strategy, improve the internationalization level of Chinese standards and form the new development pattern with the mutually promoted domestic and international standards.

China and Germany enhance communication through WG Meeting

The meeting of China-Germany standardization strategy working group was held virtually on December 15, 2020, which was attended by Cui Gang, Director-General of Standards Innovative Management Department of SAMR, Christoph Paul Winterhalter, Executive Board Chairman of DIN, as well as Michael Teigeler, Managing Director of DKE.

The two sides discussed the key issues including ISO Strategy 2030, governance reform and development and implementation of strategic plan in IEC, digitalization and machine readable standards with follow-up cooperation scheme defined. They also exchanged views on the role of association standards in standards system, their conversion to national and international standards and other topics.

Both sides agreed to constantly enhance communication in the fields with common interests and promote the bilateral standardization cooperation towards more practical outcomes based on the work of the standardization strategy working group jointly established by the two countries.

China and France strengthen standardization cooperation

The virtual meeting for China-France standardization cooperation was held on November 30, which was co-moderated by Tian Shihong, Vice-Minister of SAMR and Administrator of SAC, and Olivier Peyrat, Director General of AFNOR.

The two sides made in-depth exchanges on the typical standardization experience and practices in the COVID-19 prevention and control internationally and discussed the long-term impact of COVID-19 pandemic on standardization. They reached a consensus that such bilateral standards cooperation on epidemic control products would play a demonstrative role during the epidemic outbreaks.

They also agreed to enhance cooperation within the framework of international standardization bodies, promote the establishment of communication and coordination mechanism in the ISO Council, support the development and revision of international standards in key fields as well as strengthen cooperation in the establishment and management of technical bodies in international standardization bodies.

Both sides agreed to further drive cooperation mechanism and expand cooperation fields, continuously promoting the practical and effective development of standardization cooperation between the two countries.

HIGHLIGHTS |

China and U.S. promote bilateral standardization cooperation

The virtual meeting on standardization cooperation between China and the U.S. was held on November 24, which was attended by SAMR Vice-Minister and SAC Administrator Tian Shihong and ANSI President and CEO Joe Bhatia.

The two sides made exchanges on the latest progress in the research on standardization strategy, and held thorough discussions on the impact of implementing the standardization strategy on international standardization.

Other topics discussed at the meeting included how Chinese enterprises participate in the activities of American standards organizations, conduct good standardization practice in accordance with TBT agreements, evaluate the contribution of standardization to economy and environment fields as well as enhance the normative management of association standards.

Both sides agreed to further strengthen strategic cooperation, expand cooperation and enhance communication about related key topics.

China and EU enhance cooperation on industry and WTO/TBT

The 18th annual meeting of the China-EU consultation mechanism on industry and WTO/TBT (World Trade Organization technical barriers to trade) took place in virtual form on November 23, 2020.

The event was moderated by Tian Shihong, Vice-Minister of SAMR and Administrator of SAC, and Hubert Gambs, Deputy Director-General of European Commission's DG for Internal Market, Industry, Entrepreneurship and SMEs.

The two sides exchanged the progress made in standardization and conformity assessment in both China and EU since the 17th annual meeting, listened to the work report on conformity assessment working group and standardization working group under the framework of the cooperation mechanism, and held in-depth discussions on standardization strategy research and quality and safety regulation for materials used in the fight against the COVID-19 pandemic.

During the meeting, the two sides reached consensus on enhancing the cooperation in related fields through the cooperation mechanism.

All for precise control of corrosion

ISO published ISO 23222, ISO 23221 and ISO 23123 on corrosion control engineering in December 2020. The three standards will facilitate more scientific and precise control of corrosion and help diminish resource waste, financial loss, environmental incidents and even severe safety issues caused by corrosion.

The series of standards are aimed at ensuring optimal benefits based on green, safe, economic and long-term operation of devices. They integrate the concept of corrosion control risk assessment in the whole life cycle of devices or systems for the first time. They also specify the principles, methods and reporting requirements for risk assessment. Huadian Electric Power Research Institute has led the efforts in making the breakthrough.

With the publicity of the novelty concept and the application of risk assessment methods in thermal power industry, scientific, economic and environment-friendly corrosion control technologies will be accessible to power station design, operation, production and management. This will dramatically reduce loss and damage to devices or systems caused by corrosion.

Safeguarding IoT safety

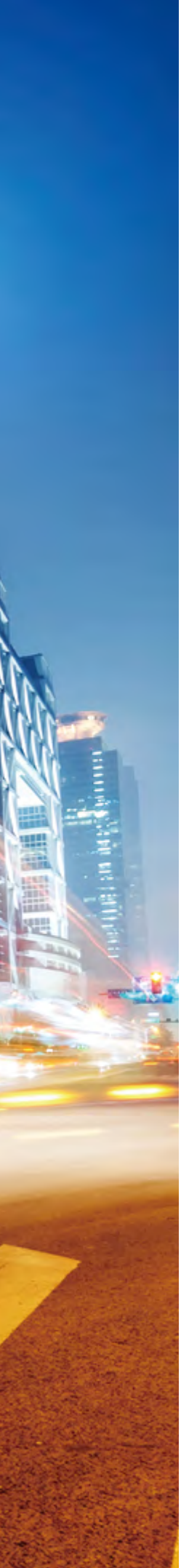
A WAPI standard was recently published as ISO/IEC 19823-16: 2020, helping reinforce the safety foundation of Internet of Things (IoT). The standard describes test methods for determining the conformance of security crypto suites defined in ISO/IEC 29167-16.

Wireless Network Security Industry Alliance of Zhongguancun (WAPI Alliance) organized the standard development, with arduous efforts of more than 10 Chinese companies. Since test technology and technical standards penetrate the whole product development, production and trade process, the standard will promote mutual recognition of test results globally and support radio frequency identification (RFID) industrial development, said Zhang Lulu, Secretary of the Alliance.

OUTLOOK FOR CHINA'S STANDARDIZATION

中国标准化展望

By Jin Yingguo 金英果



As the starting year of the 14th Five-Year Plan period (2021-2025), 2021 is critical to China's modernization drive. The country has entered a new era of high-quality development, where people have higher demands for standards to lead a beautiful life. At present, however, national innovative capacity is not strong enough to underpin high-quality development.

Scientific and technological innovation is a catalyst for new drivers of growth. The emphasis on vigorously enhancing the capability of independent innovation has been reiterated. It has now been written into the 14th Five-Year Plan, calling for concentrated efforts to make breakthroughs in innovations keeping pace with global science and technology frontier, supporting main economic battle field, meeting major national needs, and safeguarding people's life and health.

This is a glorious but difficult undertaking for all Chinese in a world experiencing profound shifts unseen in a century. Political tensions continue to expand influence on global, regional and national economy, which has been far worsened since the outbreak of Covid-19 in 2020. The sporadic surge of coronavirus variants invalidates our least optimistic prediction about how long the pandemic will last. The world environment is increasingly bewildering. At the meantime, technology is reshaping our life in a faster way, bringing hope and unprecedented opportunities.

In the process, standards play a critical role. This has been manifested in the global fight against Covid-19 last year. Standards have enabled soaring productivity and accelerated circulation of medical appliances across the globe, faster diagnosis of people with Covid-19 and tracing their close contacts, greatly shortened development and production of the vaccines, to name but a few. Standards have led us through many wind and rain. They have a more prominent, strategic and leading role in supporting China's transition from a phase of rapid growth to a stage of high-quality development.

The 14th Five-Year Plan has put forward the task of improving national quality infrastructure and building up standards, metrology and patent system and capacity to promote quality upgrading within the next five years. In the face of increasing uncertainties in the external environment, China is accelerating the establishment of a "dual circulation" development pattern whereby domestic and foreign markets can boost each other, with the domestic market as the mainstay. How will China's standardization community adapt to this major change?

The last five years have witnessed great strides in standardization reform. Based on the experience, can we identify and avoid mistakes? Can we be certain of and further build up the strengths in the next five to ten years? In what areas can we make breakthroughs?

Those are the questions China's standardization community has to ask when stepping into a new era full of challenges and opportunities. *China Standardization* sat down with renowned experts in the community to talk about their expectations of China's standardization cause in the next five to ten years. We hope their thoughts and wisdom will inspire you and shed some light on the future of standardization and the world.

Building China's strength in standards

纪正昆: 标准化强国一定能够实现

Ji Zhengkun is Member of Advisory Committee on Manufacturing Power Strategy Development, Consultant to China Standardization Expert Committee, and Executive Director of Expert Advisory Committee on National Standardization Strategy Implementation. Mr Ji is also the former SAC Administrator and former President of China Association for Standardization.

Where do you see China's standardization in the coming five to ten years?

Ji Zhengkun: I describe the outlook of China's standardization in the next five to ten years with three words: shifts, innovation and development.

I'll start with shifts. Chinese President Xi Jinping has restated that the world is experiencing profound shifts unseen in a century, including diplomatic, political, social, economic and cultural changes, etc. It is much harder to ignore this in the context of the Covid-19 pandemic.

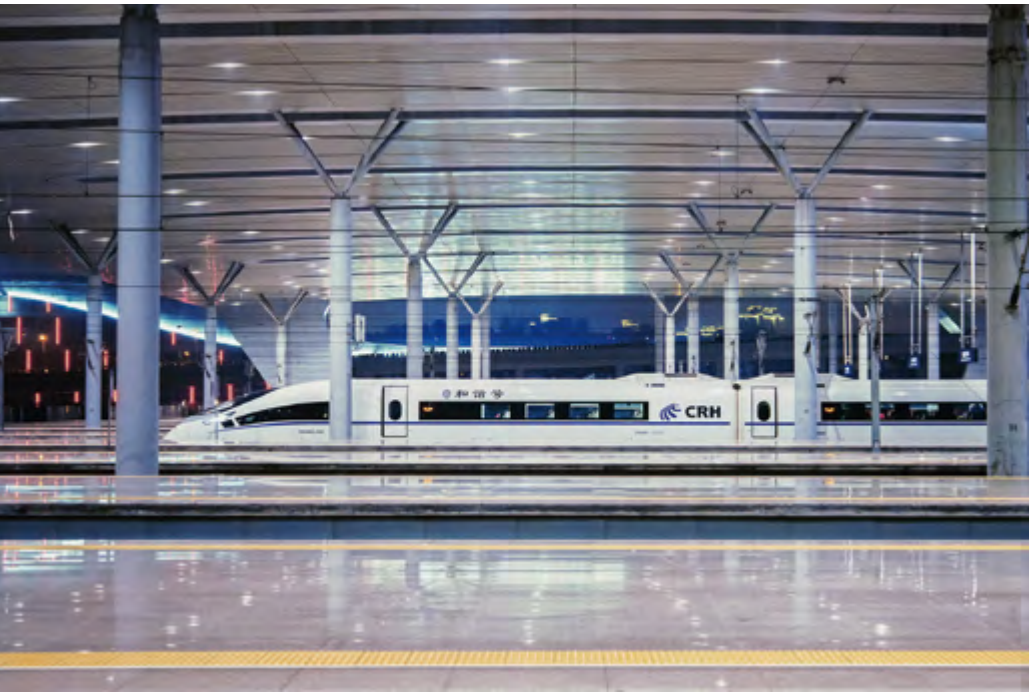
What shall we do in the face of the harsh realities? Innovation. It's the only way to adapt to the new situation and new pattern. Take China as an example. The Central Government has made many major decisions accordingly. At the fifth plenary session of the 19th CPC Central Committee held on October 26-29, 2020, it decided to establish a new development pattern featuring dual circulation, in which domestic and overseas markets reinforce each other, with the domestic market as the mainstay, indicating a major change.

I describe the outlook of China's standardization with three words: shifts, innovation and development.

In response to those profound changes, we need to innovate and in so doing, advance development. China puts forward a series of major national strategies, such as building a strong country in quality, standards, manufacturing, culture, military power, etc. We need innovation to keep pace with the times and realize high-quality development, especially during the 14th Five-Year Plan period (2021-2025).

Many initiatives and measures are required to support high-quality development, for example, China Standardization Strategy Development Plan (2035) that is being developed. Its core goal is to build China's strength in standards by establishing four systems: a new standardization management system, a standardization performance system, a new standards system and a cooperation system that meet the needs of high-quality development in the new era. The fourth system shall also address the needs of global governance and international standardization.

Amid the Fourth Industrial Revolution, the leading role of standards becomes more prominent with the fast development toward intelligence and ever-changing information, digital and Internet technologies. And standardization still has a long way to go to shoulder its responsibilities for building a community of shared future for mankind. Those issues are what the national standardization strategy aims to resolve.



How do we effectively implement the national standardization strategy?

Manufacturing sector, as the backbone of the real economy, is an important area for implementing the national standardization strategy. Its prosperity is a prerequisite for building a manufacturing power and a strong economy. The State Council of China is developing the Manufacturing Power Development Plan 2035, and has established an Advisory Committee on Manufacturing Power Strategy Development, which is composed of more than 50 academicians and experts, including me.

Giving full play to the leading role of advanced standards is essential to build a manufacturing power. A top priority is to promote standardization in the manufacturing sector, which has two actuators.

One is high-tech innovation, especially in smart manufacturing, a distinctive feature of the Fourth Industrial Revolution. Indigenous innovation and technological self-reliance is important to develop high-techs represented by quantum science, brain science, deep space and deep sea science, industrial Internet and artificial intelligence.

To this end, China has issued a lot of policies, for example, strengthening development of new-generation information technology including chips. The Central Government also calls for advancing standardization to support indigenous innovation in core technologies. Without standards, production cannot scale up. Only harvests in basic research are not enough. A large number of new high-quality standards are required in applied research.

We have established a brand-new standards system and held self-relied intellectual property in many areas, such as BeiDou Navigation Satellite System, China Sky Eye, deep-sea exploration, Chang'e-4 that has landed on the far side of the Moon, and Chang'e-5 that has brought back lunar soil and rock samples to the Earth. Those are accomplished all by our own through embracing high-tech innovation.

The second actuator is quality upgrading of traditional industries. In the process, new standards are applied to address the needs of the Fourth Industrial Revolution, apart from new materials and new technologies. It is also important to focus on key sectors, key industries and key products. To have vigor and force, standards must be closely connected with industries and sectors.

To advance the development of standardization, the national strategy for building strengths in standards needs to be bound up with the strategy for building a manufacturing power. It's also the focus of the 14th Five-Year Plan in the field of standardization.

In addition, agriculture, social management and service sectors are also major areas where the standardization strategy has a big role to play. Here are some examples.

Standardization is in desperate need to promote rural revitalization. The core of the strategy is to make rural areas beautiful and farmers better off. If farmers are not better off and agriculture is not strong, it is impossible to realize modernization. It is a new direction for the endeavor to promote standardization in beautiful countryside construction.

It also shoulders a lot of responsibilities for improving government service center, a public service platform for social management, which is exemplified by Taizhou City of Zhejiang Province.

In the cultural tourism sector, standardization has made some achievements, for example, establishing many national tourism service standardization demonstration areas, such as in Mount Huangshan and Mount Wutai. In tourist destinations, the design of trashcan, service language, road sign and others need to be standardized.

Standardization of cultural construction shall be put on the agenda too. China Association for Standardization (CAS) has set up a cultural industry division for promoting standardization work in the area.

Innovation is the only way to adapt to the new situation and new pattern.

Can we make a breakthrough in institutional system, mechanism, technological innovation or internationalization?

Institutional innovation is important, because it is the source of future development. For example, CAS has been approved to apply a new management system and become an independent market entity, which is an important reform in the country's standardization management system.

Specifically CAS will become independent of government bodies in its functions, personnel management and recruitment, finance and assets, party construction and foreign affairs management. It will enter the competitive market independently, under the supervision of the Ministry of Civil Affairs.

How will CAS adapt to this dramatic change? The most important thing is to embrace the market and put CAS in the right place. Its mission is to provide good standardization services for the market. A lot has to be done in agriculture, service, government management and public services, and other sectors. The focus shall be the industrial sector, especially artificial intelligence.

CAS has established an Expert Advisory Committee on National Standardization Strategy Implementation in 2020, bringing together 32 respected experts in specific areas, including 10 academicians. Among them are Honorary President Wu Hequan, who was former Vice President of CAE, Academician Zhao Xiangeng, who is now leading the efforts in developing China's Standardization Strategy 2035, Academician Gan Yong, former Vice President of CAE, Academician Gong Ke, President of World Federation of Engineering Organizations (WFEO), Academician You Zheng, Vice President of Tsinghua University, etc.

With its focus on manufacturing sector and orientation towards the market, CAS is sure to face a bright future. Of course, we also need to build up personnel to improve talent structure, level up knowledge and raise professional level.

photo: CSP

How can we improve standardization work in the future? Do you have any suggestions on problems to be resolved or strengths to be promoted?

China's standardization work is not devoid of shortcomings or drawbacks, despite the great achievements in the past decades and its increasing global influence. For example, the wording of many standards has never been revised. It seems rigorous, but actually is less attractive and hard to understand. Standards have to be legible and keep up with the times. Only standards that are easy to understand can be effectively implemented.

In addition, standardization work is restricted to a small area, which goes against the principle that standards shall be open and applicable across the board. To address the problem, one way is to write standards in plain language, that is to say, make core technologies accessible to enterprises in clear and concise words. The format of standards shall also be innovated.

I'm working on intelligent standardization, a new research area to make standards digitalized, terminal-oriented and intelligent. Standardization has to be forward-looking and able to address needs in the new era.

China has experienced dramatic reforms in standardization in the past five years. What is your expectation for China's standardization work in the future?

Despite twists and turns on the road ahead, there are bright prospects for the cause. China's standardization work can adapt to the development of world economy and international standardization during the 14th Five-Year Plan. China can build a strong country with high quality standards.

(Chinese version written by Guo Kai and Zhao Zijun;
edited and translated by Jin Yingguo)
采写/郭凯 赵子军 编译/金英果

Exerting the fundamental and guiding role of standards

郎志正: 发挥基础引领作用 做好标准匠人

photo: CSP

Lang Zhizheng is Consultant of China Standardization Expert Committee, Winner of Lifetime Achievement Award of China Standards Innovation and Contribution Award, Director of Expert Advisory Committee for Technical Review of National Standards, Deputy Director of China National Accreditation Board for Conformity Assessment, Member of International Academy for Quality and former Counselor of the State Council.

How do you see China's standardization development in the upcoming 5 to 10 years?

Lang Zhizheng: The concept of "high-quality development" was first proposed by the Central Government of China in 2017. And it appeared more than 10 times in the proposal for formulating the 14th Five-Year Plan on national economic and social development and the vision for 2035 during the 5th plenary session of the 19th CPC Central Committee in 2020. All these show that the Central Government pay great attention to high-quality development.

What is high-quality development? I think it should be explained from the aspects of aim, philosophy and approach. Its aim is to meet the needs of different groups of people. Its philosophy is the overall plan for promoting economic, political, cultural, social and ecological progress, and the five development concepts of innovation, coordination, green, openness and sharing, which actually aim to promote sustainable development. And the approach is what Chinese President Xi Jinping said during an inspection trip to Henan province in 2014, that is, the country should make made-in-China products transform to created-in-China products, Chinese speed transform to Chinese quality and Chinese products to Chinese brands.

What is the relationship between high-quality development and standardization? In fact, standardization is the basis for quality evaluation, as President Xi pointed out that "there will be no high quality without high standards". Therefore, high-quality development is closely related to standardization. When it comes to high-quality development, the issues on standards should be addressed in the first place.

Standards ensure high-quality development through fundamental technology. The theme of promoting high-quality development proposed at the 5th plenary session of the 19th CPC Central Committee indicated the direction for future standardization development in China.

Taking institution and mechanism, technological innovation and internationalization into consideration, where do you think standardization work is likely to make a big breakthrough?

In terms of institution and mechanism of standardization, I want to make clear the following two points. First, former AQSIQ was replaced by SAMR through institutional reform, and the work of SAC and CNCA were undertaken by two departments under SAMR respectively. Such institutional setting will undermine standardization, certification and accreditation to some extent. I suggest that the state should set up an administration department to exercise unified leadership over standardization, certification and accreditation work. It will greatly facilitate the development and implementation of standards.

Second, standards are classified into government-led standards (national, sectoral and local standards) and market-oriented standards (association and enterprise standards) in the revised *Standardization Law of China*. It is an innovation and a great breakthrough in mechanism. It is an important transformation as well, which makes market-oriented standards play a relevant leading role in resource allocation.

Standardization plays a fundamental and guiding role in technological innovation, which has been more prominent with the high-tech development in China. The national standards on WAPI and TD-SCDMA are a solid proof.

In addition, we have made major breakthroughs in the participation in international organizations in recent years. Chinese experts have successively assumed the leadership of ISO, IEC and ITU. What I want to stress is how to take our own path in internationalization and introduce more Chinese standards into the international standardization arena, especially under the Belt and Road Initiative.

It is very important for standardizers to look into internationalization. The key is innovation, which determines whether we can well participate in the international standardization. In the journey forward, we encourage great efforts on product manufacturing together with standards, patents, certification and accreditation as well as brands.

Where shall we improve ourselves in the future standardization work, and what advantages should be carried forward as much as possible?

I think the first problem is the coordination between association standards and sectoral standards. After the legal status of association standards was established, some insiders suggested abolishing the sectoral standards. In fact, it was not in line with the reality in China, and went against the revised *Standardization Law of China.*

There are more than 60,000 sectoral standards now in the country. To replace the sectoral standards with association standards would take a long time and a lot of coordination. In addition, the rapid development of local standards lies in the vast territory and abundant resources in China, where every local product and service has its own characteristics. Thus, it is impossible to easily abolish local standards.

Second, we should show the distinct Chinese characteristics in standardization research, considering both industrial development and national conditions. Why is there a need for sectoral standards? What is the relationship between association standards and sectoral standards? The two kinds of standards are integrated in some industries such as light industry and electric power industry. But sectoral standards are more authoritative in most industries including automobile and finance. We need to probe into the proper transition.

Association standards are actively used in high-tech enterprises. Their technologies update rapidly, thus association standards are more suitable. However, sectoral standards play a bigger role on the whole. But how to orderly develop association standards is another problem, which needs to be addressed by the national standardization department.

Third, how to better exert the role of national standards. I think national standards have a clear positioning, which have been streamlined a lot so far. They play a fundamental and guiding role. As the top-level design and bottom line, they are the key to the entire national standards system. The Expert Advisory Committee for Technical Review of National Standards was set up in August 2020, which was designed to tighten control over the project approval of national standards, keep the quality and quantity of national standards under control and make more standards published as sectoral standards.

Fourth, promote the development of standardization personnel in enterprises, providing them with more care and better training. That is because all standardizers work behind the scenes, whose painstaking and earnest efforts always serve the public and the society in some sense. This is what we call the spirit of craftsman.

At last, I think the advantages of China's standardization work are reflected in several aspects. First, unified leadership, i.e., the government plays an important role in standardization work; second, enterprises have an increasingly deeper understanding of standardization and are willing to devote themselves in this regard; third, in terms of high and new technologies, standardization work has a very good prospect.

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

采写/张佩玉 编译/靳吉丽

Embracing best opportunities and biggest challenges

张晓刚：中国标准化工作迎来史上最好机遇期和最大挑战

Dr. Zhang Xiaogang is the member of China Standardization Expert Committee, Chair of the Standardization Work Committee of All-China Federation of Industry and Commerce (ACFIC), consultant at Standardization Research Center of Guangdong-Hong Kong-Macao Greater Bay Area, and President of SparkLink Alliance. Dr. Zhang is also the former President of ISO and Worldsteel, and once served as Party Secretary and General Manager of Ansteel Group.

How will China's standardization work evolve in the future?

Dr. Zhang Xiaogang: I think that China's standardization work has the best opportunities now and even in several years to come. Why? China is now entering a new period of high-quality development. In contrast, in the past three and four decades, China adopted an economic development mode that mainly pursued speed and quantity. Such mode is acceptable, as China has made great achievements. In this way, China has realized development and prosperity in only four decades.

Then, why does China choose to transform into high-quality development? Because the development period only pursuing high speed and scale is gone, and China has to take the path of high-quality development in the future. For example, China's manufacturing industry ranks the first now in the world. But the industry is large-scale but not powerful, and relevant technologies remain in the mid-low end. All the existing problems must be addressed now, which is one of the priorities of China's transformation.

In the 19th CPC National Congress, Chinese President Xi Jinping put forward that China is going to transform into high-quality development mode, a wise decision made by the Central Government. Leaders at all levels and entrepreneurs from all sectors have recognized that changing the development mode is of great importance to companies, manufacturing industry, economy and even the whole nation, thanks to the important impact of standards.

The Chinese Central Government has attached unprecedented importance to standards. President Xi sent a congratulatory letter to the 39th ISO General Assembly held in Beijing in 2016, which was addressed by Premier Li Keqiang. President Xi mentioned standards for many times in the reports delivered at the 5th plenary session of the 19th CPC Central Committee and other meetings. This demonstrates that standards are of vital significance to the transformation to high-quality development, as they are the technical basis of quality.

As President Xi once said, high quality can only be achieved with high standards. Standards are a powerful tool to achieve high-quality development. If leaders in government and businesses realize that standards can help advance development in government management, social governance, business management, in particular the manufacturing industry, I believe that high-quality development is around the corner.

Now it is the best period for generations of Chinese standardizers. Why? Because people would never recognize the value of standards in national development if China has not yet entered this stage.

In the past three or four decades, China has taken the way of "introduction, absorption, re-innovation" to make technical or management innovation, following the steps of developed economies. But China is at a new historic juncture now. We shall use standards to boost government management, social governance and business. Standards become unprecedentedly important.

What challenges will China face in the standardization area?

In the next 5 to 15 years, China will face many challenges in the standardization field, in particular the international standardization.

China is a developing country. Although it was one of the founding members of ISO more than 70 years ago, it seldom participated in the international standards development or global governance after that due to political and economic reasons. However, China's economy has grown quickly in the past three decades, and learned lessons from its own practices. We want to contribute our experience to the world by using standards as a tool, and put forward solutions for world's balanced development. This is what we want to do, and also what the Chinese people should do for all human beings at this stage.

China has persisted in the multilateral system and served the world by using standards as the common language for many years. No matter what political and ideological differences between China and other countries, there is a common goal of advancing development for human beings.

We hope that China's successful experience can provide the world with effective solutions by using standards, a systematic tool without political or ideological features. This is the value of standards. It is also the only effective way for China to make more contributions to human beings.

International standard is developed by all stakeholders from the world. After an international standard is developed, most countries will adopt it. If China participates in the development of international standards, its experience, wisdom or solutions can become a part of international standards, and that's where the value of standards lies.

To achieve the balanced development in the future, China should explore the standardized development mode and internationalization of standards, which might be an opportunity for China to make greater contributions to the world.

We hope that China's successful experience can provide the world with effective solutions by using standards.

How to understand the transformation into high-quality development?

First of all, I think that high-quality development means innovation mode must be changed fundamentally. The governments at all levels and businesses in China have been pursuing technological and management innovation in the past 30-40 years; however, the connotation of innovation is different now.

In the past, almost all Chinese businesses applied the mode of "introduction, absorption, reinnovation", which solved the problems in the process of growing into the world's second largest economy. In fact, it is the way of following the steps of developed economies. The innovation results helped us address the problem of quantity.

But China now needs to solve the problem of quality, which means to make independent or even subversive innovation. It is the biggest challenge faced by China's manufacturing industry.

If you think that China's ultimate goal is to become the world's largest economy, then you completely misunderstand the connotation of high-quality development.

What marks the success of China's transformation into high-quality development? The answer is neither the highest GDP nor the largest number of Chinese companies in top 500 companies in the world. It depends on how many Chinese companies become world-class in the leading areas of the global industrial chain. It is the real symbol of success.

So what kind of company is world-class? First of all, it can lead the global technological and management innovation and play a major role in taking the global social responsibility; more importantly, it can make great contributions to the development of international standards. It is the goal China's excellent companies and government shall pursue.

In 2020, due to the global outbreak of Covid-19 pandemic, the CPC Central Committee urged the country to accelerate the establishment of a "dual circulation" development pattern. What is the relation between "dual circulation", high-quality development and standards?

The next five years is a vital period for China, as it will face huge challenges in the internationalization of standards.

The initial result of high-quality development is expected to be seen during the 14th Five-Year Plan period (2021-2025), but the real effect can only be shown after 10 to 15 years.

The Central Government has already made major adjustments to the standardization system and mechanism, including the reform of government-led and market-oriented standards. What is the next step? It depends on what is effective for both China's development and being geared to international standardization. That will be the direction of China's future standards reform.

The "dual circulation" development pattern means that domestic economic cycle plays a leading role while international economic circle remains its extension and supplement. What is the relationship between the domestic economic cycle and standards? I think that standards shall be used to advance the high-quality development of Chinese brands, businesses and industries, to expand the influence of our brands and optimize internal impetus by improving standards. In the international economic circle, Chinese products and brands can gain popularity in the world through the internationalization of Chinese standards.

On the one hand, we shall improve independent innovation to create well-known and trustworthy brand; on the other hand, standards used by the brand shall be accepted globally. In this way, the high-quality product and brand will benefit humankind and the world along with the internationalization of standards.

The priority of China in the new development period is to develop economy, improve the livelihood of our people and actively participate in international standardization activities and take responsibilities, making contributions to the progress of global civilization.

Zhang Xiaogang, the then ISO President delivers a speech at the 39th ISO GA held in Beijing, China.

Zhang Xiaogang and Tian Shihong, SAC Administrator shake hands in the signing ceremony between ISO and SAC in 2016.

What technology do you think will be significant in the future?

Digital technology and its application will be extremely significant in the next 15 years, as it is the core of the Fourth Industrial Revolution. In the future, digital technology will change the development mode in almost all sectors. And the standardization of digital technology is facing big challenges, which has gained concerns from all around the world. Digital technology is now seeking the entry point of application.

China has been in the initial stage of digital technology and we shall use standards to improve quality, efficiency and benefits. China shall play a bigger role in developing standards in emerging industry, such as sharing economy, blockchain, etc.

For example, the SparkLink Alliance established in September 2020 is aimed at making innovations of the whole industrial chain and vertically applying the up-to-date digital technologies to all areas. It is an exploration of independent innovation in the new development pattern of "dual circulation". We are very confident about it.

(Chinese version written by Zhao Zijun; edited and translated by Cao Xinxin)

采写/赵子军　编译/曹欣欣

Insight into future standardization development

宋明顺: 未来标准化发展趋势之我见

Song Mingshun, Member of China Standardization Expert Committee, President of China Jiliang University, and Vice President of China Standardization Association, shares his insight into the development trends of standardization in the near future.

Today's world is undergoing major shifts unseen in a century, and multipolarity and digitization will profoundly affect standardization in the following aspects.

Closer relations between standards and policies/laws

More policy documents will be published in the form of management standards. In the process, the principles of standards development make policy-making more open, transparent, liberal, scientific and normative. Meanwhile, citing standards in policies will become a normality, to improve the scientific nature of policies and the coordination between policies and technical capabilities.

The number of mandatory standards or technical regulations will continue to decrease with a combination of qualitative and quantitative stipulations. Qualitative stipulations will be the main form of technical regulations, and voluntary technical standards cited in administrative decrees will be a complement. The closer relations between standards and policies/laws will drive the modernization of national and regional governance systems.

Multipolar and regional development of standards organizations

In an era of intensified multipolarization, international standards organizations have also showed a state of multipolarization, mainly in the specialization (or industrialization) of international standardization organizations and the regional development of standardization organizations.

Specialized bodies such as 3GPP, BIPM and ONVIF are established in more industries and professions to develop international standards, so as to ensure their applicability and timeliness. They have bigger influence in their own specialized areas than the three international standardization organizations including ISO, IEC and ITU.

Regional cooperation organizations spring up with a special focus on standardization, such as APEC, ASEAN and RCEP. ASTAP and AGA in Asia-Pacific region and ETSI, CENELEC and CEN in Europe conduct regional standardization activities, which more often integrate with regional comprehensive cooperation policies and can effectively facilitate the development of regional cooperation.

Industrial and chain consortia

Enterprise standards are implemented most effectively and efficiently, and they respond fastest to the market. Except for a few de facto standards, most enterprise standards rely on consortia to gain market advantages. There are two kinds of consortia: industrial consortia established by manufacturers of similar products and chain consortia established by upstream and downstream enterprises on the supply chain.

Standards development is one of their main activities, which serves the need of production and the intrinsic power of expanding market share. Consortia standards and de facto standards are the most competitive market-oriented standards.

Digital technologies need the support of corresponding technical standards and standardization processes.

photo: CSP

Digitization and parameterization of standards

In the digital era, digital technologies and digital economy are the most prominent features of the society. The digital technologies need the support of corresponding technical standards and standardization processes, such as 5G, AI, IoT and big data. Therefore, digital standardization will be one of the most important priorities in future standardization work. Furthermore, digital technologies, as one of the main manifestations of standards, will be widely applied in the traditional fields, making standards more digital-oriented.

At the same time, technical standards will appear more in the form of parameters, defining specific technical parameters instead of implementation and verification methods, which are more easily digitalized to meet the needs of the digital age.

Standardization in China has made unprecedented achievements since the 19th National Congress of CPC held in 2017. And a new pattern of standardization work will be established to lead the development of its international standardization work, giving full play to the advantages of institutional strengths and cutting-edge technologies and industries, in particular digital economy.

(Translated by Jin Jili)
编译/靳吉丽

Transforming from quantity to quality benefits

马德军：未来中国标准化工作应从数量型向质量效益型转变

Ma Dejun, Member of China Standardization Expert Committee, Vice President of China Household Electric Appliance Research Institute, Secretary General of SAC/TC 46 on household appliance and Vice Chairman of IEC/TC 61 and IEC/SyC AAL, shares his idea about the future development of standardization in China.

Quantum leap in the next 5 to 10 years

Front-line standardizers will see a quantum leap in China's standardization work in the upcoming 5 to 10 years. During the 13th Five-Year Plan period and even a few years before, the efforts of several generations of standardizers have laid a solid foundation for China's standardization work to make a great leap forward.

It is mainly reflected in two aspects. First, the newly revised *Standardization Law of China* has provided good legal basis for the promotion of standardization work. Second, as the public's awareness of standardization increases, the state invests more in relevant work.

Standards were thought to be just approved document in the past. The truth is standardization is essentially a specialized discipline and a branch of science, with the features of both basic and applied scientific research. The latter is featured with large investment, high market return as well as fast transformation and application of scientific and technological achievements. Thus, the benefits of technical innovation and achievement transformation brought by standardization can be quantified.

For example, standardization contributes 28.44% to the GDP of industrial development and 37.4% to productivity gains, according to the British Standards Institution (BSI), who has an algorithm for assessing the benefits of standards. In China, the figure may vary due to the imbalanced development between different industries. The standards on household appliances perhaps have a bigger impact on the industry.

It is not difficult to see the importance of standardization work from this example, and it will realize high-quality development in the next 5 to 10 years based on the institutional design and safeguard of standardization in the early stage.

Scientific research, high-quality talents and international vision

The current institutional design ensures the promotion of standardization work in China. In terms of system, mechanism, technical innovation and internationalization, we should raise the standardization awareness in the whole society by enhancing scientific research, cultivating high-quality talents and expanding international vision.

As mentioned above, standardization is a discipline, so it is important to make a scientific qualitative and quantitative evaluation of its academic level and the benefits it brings. The evaluation is now very useful but still at the qualitative stage in most fields. However, its benefit is not clear in certain industries, and indirectly affects its social acknowledgement in all respects.

In the future, we can learn from sophisticated methods for evaluating the benefits of standards in foreign countries and fully exert the promotion role of standardization in industrial development based on the specific condition in each industry. But nowadays, since the role of standardization in social development is not fully revealed, we should further enhance the visibility of standard results on the basis of scientific evaluation.

To improve the public awareness of standardization, we should further strengthen publicity. The science of standards should be included as a separate item in the application of various scientific and technological achievements, including national awards and talent awards. Therefore, a consensus shall be reached that standardization is a discipline the same as physics, chemistry, mathematics and others. A deserved position will further facilitate the exemplary role of standardization.

How to enhance the scientific research strength of standardization? The answer is that scientific and technological management departments set up special standardization scientific research projects and provide them with financial support annually to develop good standards through scientific research.

With good standards, we can upgrade applicability and practicability and promote innovation of start-up technologies, convert them into products, realize the application of technological achievements, and promote the spiral rise of technical innovation level. We have done a lot of exploration and attempt with detailed data about the immediate effect of standardization. The input-output ratio of standard is very high. If used properly, standards will have a prominent role.

As we know, standardization work needs interdisciplinary talents. It requires not only profound expertise but also strong ability to coordinate and discern the development trends of the entire industry and understand national and international situations. Standardization talents are in short supply all around the world.

We hope that standardization authorities and relevant industries will formulate long-term standardization talent pool plans and introduce new talents at different times, so that the standardization cause can be passed on from generation to generation.

How to build a high-quality talent team? First of all, all sectors of the community are fully aware of the importance of standardization and even its academic value. Standardization practitioners should be given the recognition equivalent to their contribution. And in this way they will have a sense of professional pride, and plunge into standardization work to become craftsmen and masters of standardization.

In terms of international standardization, we should keep a foothold on national standardization and look at international standardization. We have learned a lot from others and we are now willing to share our achievements in standardization practices with the rest of world and serve the development of global economy.

For instance, since the outbreak of COVID-19 pandemic across the globe, the household appliances that can sterilize pathogenic microorganism are developed based on previous technical achievements in the industry. These products help promote epidemic control and production resumption in China and even support the global epidemic fight after entering Brazil and other countries seriously hit by the virus. With the efforts of standardizers, we contribute more Chinese wisdom to the globe, providing public products of international standardization for addressing global issues.

Transforming from quantity to quality benefits

Standardization practices can follow certain pattern after many years' development. At present, we should focus on the quality instead of the quantity of standards. In the future, standardization work should transform from quantity to quality benefits, eyeing on the benefits that standardization can bring to its stakeholders.

Standardization organizations with global influence should be cultivated in a planned way as well in the future. It is expected that renowned international standardization organizations like ASTM and IEEE will come into being with concerted efforts, providing more and better standardization services for building a community of shared future and facilitating global economic and trade development.

What's more, I suggest that standards work can be examined on the basis of implementation effect instead of completion rate and similar indicators. It will well guide the future standardization work, making standardizers pay more attention to the development of good standards.

The ubiquitous benefits of standardization will be recognized one day. With the high standard's role in driving high-quality development, we hope to bring a happier life for all with joint efforts. CS

(Chinese version written by Yang Jingli; edited and translated by Jin Jili)

采写/杨敬丽　编译/靳吉丽

10th Anniversary of CSP

见证历史 中标社喜迎十周年

By Cao Xinxin
文/曹欣欣

China Standardization Press (CSP) celebrated its 10th anniversary in December 2020. A decade ago, five journals sponsored by China National Institute of Standardization (CNIS) and China Association for Standardization (CAS) merged into the biggest media cluster in the standardization field in China, which was named China Standardization Press.

After the restructuring, CSP has experienced the unprecedentedly leaping development of China's standardization with "reform" as the theme of the times. In 2015, the State Council, China's Cabinet, released *the Plan of Deepening Standardization Reform*, which symbolized the big start of the reform in the standardization field. Three years later, the revised *Standardization Law of China* came into force, providing legal foundation for reform and innovation in the area. Since then, association standard has been officially recognized, injecting fresh blood to the standards supply. Standardization work has also made innovations in the aspects of system, mechanism, theory, management and methods.

In the last ten years, Chinese experts have successively assumed the positions of ISO President, IEC Vice-President and President, ITU Sectary-General and other roles in technical committees, playing a bigger role in international standardization work. They have made greater contributions to the world by providing valuable, applicable solutions based on their experience.

With the mission of "recording the process of Chinese standards and promoting the construction of Standards China", CSP has made great efforts to contributing to the development and reform of standardization in China.

To name a few, it has established an academic platform to facilitate the research on standardization theories and discipline construction and encourage innovative practice and pilot programs. It launched the annual campaign of "10 Outstanding Standardization Figures" in China, the first of its kind, to select role models in standards field to raise public awareness of standardization. CSP also helped construct the Standards Cultural Center of Hebei Province and other exhibitions to display the origin and development process of standardization, opening a door for the public to know more about standards. It has sent the English journal of *China Standardization* to three international standards organizations, regional standardization organizations, and national standards bodies of more than 100 countries across the globe. More importantly, it has translated and published the Chinese version of *ISOfocus*, the official magazine of ISO, which can be freely downloaded by global readers on the ISO website.

Standards is a common language of the world, and also the result of human civilization. China's standardization is now embracing the golden times and facing the biggest challenges as well. We are very honored and happy to grow together with China's standardization!

Scan the QR code to find more about CSP's 10th anniverary

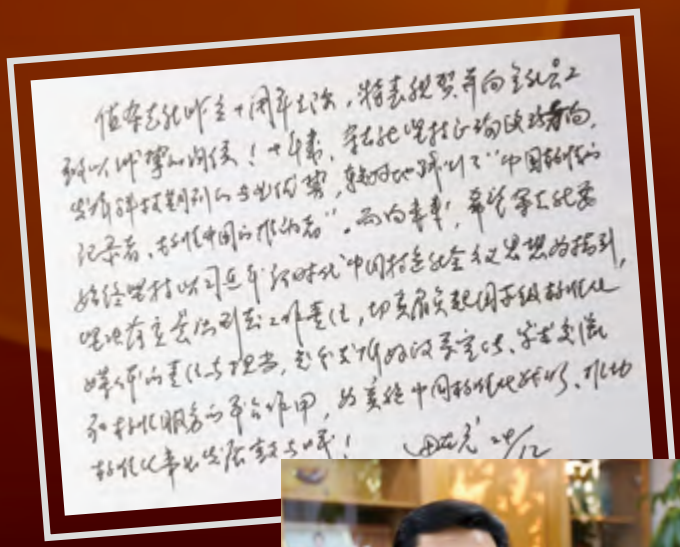
Greeting messages

On the occasion of the 10th anniversary, we are very pleased to receive the congratulatory letters and videos from leaders of competent departments, standardization experts as well as international partners. Here, let us see more about CSP with their comments!

Voice from leaders and experts

"On the occasion of the 10th anniversary of CSP, I extend sincere greetings to all staff. In the past decade, CSP exploited the advantage of scientific journals to the utmost, "recording the process of Chinese standards and promoting the construction of Standards China".

In the future, I hope that CSP can adhere to Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era, take the responsibility of a national standardization media and play a key role as a platform of policy publicity, academic exchanges and standards services, boosting the implementation of China's standardization strategy and advancing the development of standardization."



Congratulatory letter from Tian Shihong, SAMR Vice-Minister and SAC Administrator

Zhang Xiaogang, former ISO President

"CSP has supported and publicized great events such as the 39th ISO General Assembly in Beijing, the 83rd IEC General Meeting in Shanghai and 2019 Qingdao International Standardization Forum. It has also reported the standardization progress in China timely to help the world know more about China's standardization work."

"I hope that CSP will play a bigger role in improving the quality of standards, products and services, and facilitating China's standardization and industrial development, to create a refulgent tomorrow!"

Li Zhonghai, former SAC Administrator

Geng Xin, Deputy Director-General of News and Publicity Department, SAMR

"In the last decade, CSP had made fruitful achievements and actively participated in the international standardization activities, making China's voice heard by the world. It has also made great efforts to popularize the revised *Standardization Law of China*."

"As one of the shareholders of CSP, we witnessed that it has served as an important platform of disseminating standardization work, recording the development process of Chinese standards, and displaying the trend of standards in China."

Wu Xiaobo, Vice President of CNIS

Gao Jianzhong, Secretary-General of CAS

"CSP has kept making reform and innovations in the past ten years with a young, vibrant professional team, forming an all-media mode integrating printed, electronic journals, website and social media."

"CSP has always kept pace with the national development strategy, serving for Chinese standardizers, companies and businesses, and more importantly for China's high-quality development."

Lang Zhizheng, former counsellor of the State Council

International partners

Nicolas Fleury, Deputy Secretary-General of ISO

"CSP has worked hard to bring standards to the forefront in China – most notably with the Chinese edition of *ISOfocus*. Demonstrating the benefits of International Standards has never been more important as we face ever evolving global challenges, and we thank you for your support over the years in bringing these stories to a wider audience. The team at ISO/CS has enjoyed our journey together and our joint efforts to publicize the benefits of International Standards."

"CEN and CENELEC are very happy to be a part of your success during the last two years of cooperation... I wish you many, many more years of success to come and hope that through our cooperation between European and standardization communities, we can continue developing our partnership. And together we contribute even more effectively to the European, international and Chinese standardization."

Elena Santiago Cid, Director General of CEN and CENELEC

Kathie Morgan, President for ASTM International

"ASTM International is pleased to have a close collaborative role with CSP, working on the biannual editions of ASTM's flagship publication, *Standardization News*, in Chinese... To date, 30 issues of Chinese SN have been published through the good partnership with CSP. Working together, we have built a resource for business and science professionals in manufacturing facilities, enterprises, research institutes, government ministries and academia across China... I am so pleased that ASTM and CSP have built a bridge, creating a direct link with Chinese stakeholders to inform and engage them."

2020 China Standards Innovation and Contribution Award unveiled

2020年中国标准创新贡献奖揭晓

The 2020 China Standards Innovation and Contribution Awards, the highest national awards in the standardization field, were given to 60 standards projects, 4 organizations and 7 experts.

The winners of the Organization Award, the Outstanding Contribution Award and the Excellent Youth Award have been published on the last issue together with part of winners of the Standard Project Award. Here, you can find the rest of the winners of the Standard Project Award.

STANDARD PROJECT AWARD
标准项目奖

The Third Prize (30 items)
三等奖（30项）

No. 序号	Name of standard project 标准项目名称	Main departments involved 主要完成单位	Main contributors 主要完成人
1	GB/T 29858—2013, *Standard guidelines for molecular spectroscopy multivariate calibration quantitative analysis* GB/T 29858—2013《分子光谱多元校正定量分析通则》	Beijing University of Chemical Technology, SINOPEC Research Institute of Petroleum Processing, China Agricultural University, National Institute for Food and Drug Control, Beijing Academy of Agriculture and Forestry Sciences 北京化工大学、中国石化石油化工研究院、中国农业大学、中国食品药品检定研究院、北京市农林科学院	Song Chunfeng, Yuan Hongfu, Wang Yanbin, Min Shungeng, Wang Jiajun, Yin Lihui, Hu Aiqin, Tian Gaoyou 宋春风、袁洪福、王艳斌、闵顺耕、王家俊、尹利辉、胡爱琴、田高友
2	T/CHES 18—2018, *Evaluation criteria for rural drinking water safety* T/CHES 18—2018《农村饮水安全评价准则》	China Institute of Water Resources and Hydropower Research, China Irrigation and Drainage Development Center, Shanxi Provincial Department of Water Resources, Jilin Provincial Water Resources Department, Henan Provincial Water Resources Department 中国水利水电科学研究院、中国灌溉排水发展中心、山西省水利厅、吉林省水利厅、河南省水利厅	Wu Xiaomei, Yao Bin, Zhao Cui, Li Runjie, Jia Yannan, Xu Jia, Dong Changjuan, Song Weikun 邬晓梅、姚彬、赵翠、李润杰、贾燕南、徐佳、董长娟、宋卫坤
3	GB/T 33469—2016, *Cultivated land quality grade* GB/T 33469—2016《耕地质量等级》	Center for Monitoring and Protection of Cultivated Land Quality, Ministry of Agriculture and Rural Affairs 农业农村部耕地质量监测保护中心	Xie Jianhua, Li Rong, Ren Yi, Zheng Lei, Zeng Yande, Zhong Luqing, Xue Yandong, Chen Mingquan 谢建华、李荣、任意、郑磊、曾衍德、仲鹭勋、薛彦东、陈明全

4	6 standards including GB 7956.1—2014, *Fire fighting vehicles. Part 1: General technical specifications* GB 7956.1—2014《消防车 第1部分：通用技术条件》等6项标准	Shanghai Fire Research Institute, Ministry of Emergency Management 应急管理部上海消防研究所	Jiang Xudong, Wang Changwei, Zhu Yi, Zhu Yun, Tian Yongxiang, Su Lin, Wang Lijing, Shen Jianmin 蒋旭东、王长伟、朱义、朱赟、田永祥、苏琳、王丽晶、沈坚敏
5	IEC 62976:2017, *Industrial non-destructive testing equipment - Electron linear accelerator* IEC 62976:2017《工业无损检测设备 电子直线加速器》	China Institute of Atomic Energy, Institute for Standardization of Nuclear Industry 中国原子能科学研究院、核工业标准化研究所	Zeng Ziqiang, Yu Guolong, Wang Guobao, He Gaokui, Xiao Chen, Yang Su, Wang Nan, Wu Xianfeng 曾自强、余国龙、王国宝、何高魁、肖晨、杨溯、王楠、伍险峰
6	5 standards including GB/T 33959—2017, *Stainless steel bars for the reinforcement of concrete* GB/T 33959—2017《钢筋混凝土用不锈钢钢筋》等5项标准	China Metallurgical Construction Research Institute Co., Ltd., Metallurgical Industry Information Standards Institute, Shanxi Taigang Stainless Steel Co., Ltd., Central Iron and Steel Research Institute, Guangxi Shenglong Metallurgical Co., Ltd. 中冶建筑研究总院有限公司、冶金工业信息标准研究院、山西太钢不锈钢股份有限公司、钢铁研究总院、广西盛隆冶金有限公司	Zhu Jianguo, Hou Jie, Li Xiaobin, Wang Huimian, Chen Jie, Yang Zhongmin, Ke Xueli, Wang Guangwen 朱建国、侯捷、李晓滨、王辉绵、陈洁、杨忠民、柯雪利、王光文
7	2 standards including TB/T 3487—2017, *AC drive electric locomotive* TB/T 3487—2017《交流传动电力机车》等2项标准	Locomotive and Rolling Stock Research Institute, China Academy of Railway Sciences Group Co., Ltd.; CRRC Dalian Locomotive and Rolling Stock Co., Ltd.; CRRC Zhuzhou Electric Locomotive Co., Ltd.; CRRC Datong Electric Locomotive Co., Ltd.; CRRC Qishuyan Locomotive Co., Ltd. 中国铁道科学研究院集团有限公司机车车辆研究所、中车大连机车车辆有限公司、中车株洲电力机车有限公司、中车大同电力机车有限公司、中车戚墅堰机车有限公司	Lu Yang, Li Jiebo, Han Xiaojun, Huang Jin, Wang Wei, Hu Liang, Zhang Xiaodong, Ding Ke 陆阳、李杰波、韩晓军、黄金、王威、胡亮、张晓东、丁可
8	GM/T 0034—2014, *Specifications of cryptograph and related security technology for certification system based on SM2 cryptographic algorithm* GM/T 0034—2014《基于SM2密码算法的证书认证系统密码及其相关安全技术规范》	Shanghai Digital Certificate Certification Center Co., Ltd., Shanghai Koal Software Co., Ltd., Beijing Digital Certification Co., Ltd., Changchun Jida Zhengyuan Information Technology Co., Ltd., Beijing Haitai Fangyuan Technology Co., Ltd. 上海市数字证书认证中心有限公司、上海格尔软件股份有限公司、北京数字认证股份有限公司、长春吉大正元信息技术股份有限公司、北京海泰方圆科技有限公司	Liu Ping, Cui Jiuqiang, Liu Cheng, Tan Wuzheng, Li Shusheng, Zhao Lili, Liu Zengshou, Xu Qiang 刘平、崔久强、刘承、谭武征、李述胜、赵丽丽、柳增寿、徐强

9	5 standards including GJB 843.2A—2017, *Safety code of design for submarine nuclear power plants. Part 2: Design requirement for the reactor pressure vessel* GJB 843.2A—2017《潜艇核动力装置设计安全规定 第2部分：反应堆压力容器设计准则》等5项标准	Omitted 略	Omitted 略
10	GJB 7862—2012, *General requirement for component-based simulation framework* GJB 7862—2012《基于组件的仿真框架通用要求》	Omitted 略	Omitted 略
11	GJB 8899—2017, *General requirements for materiel target characteristics program* GJB 8899—2017《装备目标特性工作通用要求》	Omitted 略	Omitted 略
12	ISO 16220:2017, *Magnesium and magnesium alloys — Magnesium alloy ingots and castings* ISO 16220:2017《镁及镁合金 镁合金铸锭和铸件》	China Nonferrous Metals Techno-Economic Research Institute Co., Ltd., Shanghai Jiaotong University, China Nonferrous Metals Industry Association, Shanxi Yinguang Huasheng Magnesium Industry Co., Ltd., Shandong Yinguang Yuyuan Light Metal Precision Forming Co., Ltd. 有色金属技术经济研究院有限责任公司、上海交通大学、中国有色金属工业协会、山西银光华盛镁业股份有限公司、山东银光钰源轻金属精密成型有限公司	Xi Huan, Wang Yingxin, Zhao Yongshan, Yang Peng, Huang Xuejiao, Gu Liu, Liu Tao, Sun Xinxin 席欢、王迎新、赵永善、杨鹏、黄雪娇、谷柳、刘涛、孙芯芯
13	7 standards including GB/T 34193—2017, *Guides for energy efficiency assessment of blast furnace process* GB/T 34193—2017《高炉工序能效评估导则》等7项标准	China Metallurgical Information and Standardization Institute, CMGC South Engineering Technology Co., Ltd., ACRE Coking & Refractory (Dalian) Engineering Technology Co., Ltd., MCC Changtian International Engineering Co., Ltd. 冶金工业信息标准研究院、中冶南方工程技术有限公司、中冶焦耐（大连）工程技术有限公司、中冶长天国际工程有限责任公司	Wang Jiangwei, Xu Hailun, Wang Mingdeng, Hu Bing, Qiu Jinhui, Niu Runzhi, Shao Yuanjing, Zhao Hui 王姜维、徐海伦、王明登、胡兵、仇金辉、牛润芝、邵远敬、赵辉

14	ISO 20780:2018, *Space systems—Fiber optic components—Design and verification requirements* ISO 20780:2018《航天系统 纤维光学器件 设计与验证要求》	Beijing Aerospace Times Optoelectronics Technology Co., Ltd. 北京航天时代光电科技有限公司	Shan Lianjie, Liu Jianchun, Zhang Bingxin, Wang Cun, Wang Yanlin, Ding Dongfa, Xiang Yanrong, Hou Jianguo 单联洁、柳建春、张兵心、王寸、王燕林、丁东发、相艳荣、侯建国
15	10 standards including GB/T 34590.1—2017, *Road vehicles—Functional safety—Part 1: Vocabulary* GB/T 34590.1—2017《道路车辆 功能安全 第1部分: 术语》等10项标准	China Automotive Technology and Research Center, Pan Asia Technical Automotive Center Co., Ltd., United Automotive Electronics Co., Ltd., Schaeffler Investment (China) Co., Ltd., Bosch Automotive Products (Suzhou) Co., Ltd. 中国汽车技术研究中心、泛亚汽车技术中心有限公司、联合汽车电子有限公司、舍弗勒投资(中国)有限公司、博世汽车部件(苏州)有限公司	Li Bo, Shang Shiliang, Tong Fei, Yang Hu, Fu Yue, Ming Yue, Xue Jianbo, Qu Yuanning 李波、尚世亮、童菲、杨虎、付越、明月、薛剑波、曲元宁
16	GB/T 30697—2014, *Test methods of characteristics for spaceborne multispectral camera with wide field of view* GB/T 30697—2014《星载大视场多光谱相机性能测试方法》	Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences 中国科学院长春光学精密机械与物理研究所	Wu Xingxing, Liu Jinguo, Jia Ping, Wu Guodong, Han Chengshan, Wan Zhi, Zhou Huaide, He Jing 武星星、刘金国、贾平、吴国栋、韩诚山、万志、周怀得、何静
17	6 standards including ISO 19354:2016, *Ships and marine technology—Marine cranes—General requirements* ISO 19354:2016《船舶与海洋技术 船用起重机 一般要求》等6项标准	The 704th Research Institute of China Shipbuilding Industry Corporation, Wuhan Marine Machinery Plant Co., Ltd., Nanjing CSSC Oasis Machinery Co., Ltd. 中国船舶重工集团公司第七〇四研究所、 武汉船用机械有限责任公司、南京中船绿洲机器有限公司	Liu Zhen, Hu Faguo, Lu Hui, Tong Xiaochuan, Yang Longxia, Hu Mao, Zhang Xiaoqun, Ye Kai 刘震、胡发国、陆慧、童小川、杨龙霞、胡茂、张晓群、叶凯
18	ITU—TX.1040—2017, *Security reference architecture for lifecycle management of e-commerce business data* ITU—TX.1040—2017《电子商务数据生命周期管理安全参考架构》	Alibaba (China) Co., Ltd., China Electronics Standardization Institute 阿里巴巴(中国)有限公司、中国电子技术标准化研究院	Zhu Hongru, Hu Ying, Li Kepeng, Bai Xiaoyuan, Sun Xudong, Jia Xuefei 朱红儒、胡影、李克鹏、白晓媛、孙旭东、贾雪飞

19	GB/T 32000—2015, *Guidelines for the construction of beautiful villages* GB/T 32000—2015《美丽乡村建设指南》	Anji County People's Government, Huzhou, Zhejiang province; Zhejiang Institute of Standardization; Fujian Institute of Standardization; China National Institute of Standardization; Department of Science, Technology and Education, Ministry of Agriculture and Rural Affairs 浙江省湖州市安吉县人民政府、浙江省标准化研究院、福建省标准化研究院、中国标准化研究院、农业部科技教育司	Zheng Qin, Ying Shanting, Yun Zhenyu, Min Jiefeng, Wang Binbin, Hua Xinyu, Liu Wen, Wei Yudong 郑勤、应珊婷、云振宇、闵杰峰、王彬彬、华歆雨、刘文、魏玉栋
20	5 standards including GB/T 32420—2015, *Specification for testing of wireless local area network* GB/T 32420—2015《无线局域网测试规范》等5项标准	Shandong Computing Center (National Supercomputing Jinan Center), China Electronics Standardization Institute, Zhongguancun Wireless Network Security Industry Alliance, Shanghai Institute of Measurement and Testing Technology, Shandong Huadi Intelligent Technology Co., Ltd. 山东省计算中心（国家超级计算济南中心）、中国电子技术标准化研究院、中关村无线网络安全产业联盟、上海市计量测试技术研究院、山东华迪智能技术有限公司	Zhou Mingle, Li Gang, Yang Hong, Li Min, Dong Huomin, Lian Yun, Zhao Xiangyang, Feng Zhengqian 周鸣乐、李刚、杨宏、李敏、董火民、廉云、赵向阳、冯正乾
21	GB/T 34651—2017, *Full face tunnel boring machine—Earth pressure balance shield machine* GB/T 34651—2017《全断面隧道掘进机 土压平衡盾构机》	China Railway Engineering Equipment Group Co., Ltd.; China Railway Tunnel Group Co., Ltd.; Urban Rail Transit Engineering Co., Ltd., China Railway No. 1 Engineering Group; Shijiazhuang Tiedao University; Beijing Building Mechanization Research Institute Co., Ltd. 中铁工程装备集团有限公司、中铁隧道局集团有限公司、中铁一局集团城市轨道交通工程有限公司、石家庄铁道大学、北京建筑机械化研究院有限公司	Li Jianbin, Li Guang, Jia Lianhui, Zhao Zhenwei, Kang Baosheng, Wang Jiangka, Guo Jingbo, Liu Shuang 李建斌、李光、贾连辉、赵振威、康宝生、王江卡、郭京波、刘双
22	T/CPASE MT002—2016, *Testing method with external variable frequency driving for the protection device's action against excessive speed and unintentional reversal of the travel direction of escalators and moving walks* T/CPASE MT002—2016《自动扶梯和自动人行道超速及非操纵逆转保护装置动作的外接变频驱动试验方法》	Zhuhai Inspection Institute of Guangdong Special Equipment Inspection and Research Institute, China Special Equipment Safety and Energy Conservation Promotion Association, National Elevator Quality Supervision and Inspection Center (Guangdong) 广东省特种设备检测研究院珠海检测院、中国特种设备安全与节能促进会、国家电梯质量监督检验中心（广东）	Qi Zhengwu, Chen Yinghong, Wang Weiguo, Liang Minjian, Wang Changming, Su Yuhang, She Kun, Yang Ningxiang 戚政武、陈英红、王为国、梁敏健、王长明、苏宇航、佘昆、杨宁祥

23	13 standards including ISO 20409:2017, *Traditional Chinese medicine—Panax notoginseng root and rhizome* ISO 20409:2017《中医药 三七药材》等13项标准	Kunming University of Science and Technology; Wenshan University (Notoginseng Institute of Science and Technology, Wenshan Prefecture, Yunnan Province); Institute of Chinese Materia Medica, China Academy of Chinese Medical Sciences; Macau University of Science and Technology; Wenshan Prefecture Panax Notoginseng and Traditional Chinese Medicine Industry Development Center (Wenshan Prefecture Biological Resources Development and Panax Notoginseng Industry Bureau) 昆明理工大学、文山学院（云南省文山州三七科学技术研究所）、中国中医科学院中药研究所、澳门科技大学、文山州三七和中医药产业发展中心（文山州生物资源开发和三七产业局）	Cui Xiuming, Huang Luqi, Liu Liang, Hu Xujia, Xiong Yin, Qu Yuan, Zhou Hua, Chen Min 崔秀明、黄璐琦、刘良、胡旭佳、熊吟、曲媛、周华、陈敏
24	Two standards including GB/T 31518.1—2015, *Direct-drive permanent magnet type wind turbine generator system. Part 1: Technical condition* GB/T 31518.1—2015《直驱永磁风力发电机组 第1部分：技术条件》等2项标准	Xinjiang Goldwind Sci & Tech Co., Ltd., Beijing Goldwind Kechuang Wind Power Equipment Co., Ltd., Beijing Tiancheng Tongchuang Electric Co., Ltd. 新疆金风科技股份有限公司、北京金风科创风电设备有限公司、北京天诚同创电气有限公司	Yu Liping, Yang Jiongming, Xie Shengqing, Gan Xuchao, Zhang Xinli, Li Huixun, Qiao Yuan, Wang Dong 俞黎萍、杨炯明、谢生清、甘旭超、张新丽、李会勋、乔元、王栋
25	15 standards including GB 34457—2017, *Feed additive—Tricalcium phosphate* GB 34457—2017《饲料添加剂 磷酸三钙》等15项标准	China Feed Industry Association; Shanghai Veterinary Medicine and Feed Testing Institute; Zhejiang Veterinary Medicine and Feed Supervision Institute; Beijing Institute of Animal Husbandry and Veterinary Medicine, Chinese Academy of Agricultural Sciences; Sichuan Provincial Feed Station 中国饲料工业协会、上海市兽药饲料检测所、浙江省兽药饲料监察所、中国农业科学院北京畜牧兽医研究所、四川省饲料工作总站	Wang Liwen, Huang Shixin, Lv Lin, Li Yun, Zhang Zhijian, Su Shenglan, Cao Ying, Ding Jian 王黎文、黄士新、吕林、李云、张志健、粟胜兰、曹莹、丁健
26	6 standards including GB/T 32161—2015, *General principles for eco-design product assessment* GB/T 32161—2015《生态设计产品评价通则》等6项标准	China National Institute of Standardization, China Academy of Building Research Co., Ltd., China Light Industry Cleaner Production Center, Beijing Technology and Business University, Henan Kegao Plant Natural Product Development Engineering Technology Co., Ltd. 中国标准化研究院、中国建筑科学研究院有限公司、中国轻工业清洁生产中心、北京工商大学、河南省科高植物天然产物开发工程技术有限公司	Fu Yun, Gao Dongfeng, Lin Ling, Wang Xiuteng, Jin Yujuan, Sun Xiaofeng, Li Kunwei, Cao Liqiang 付允、高东峰、林翎、王秀腾、靳玉娟、孙晓峰、李坤威、曹力强

27	12 standards including T/CEC 165.1—2018, *Electrical heating system technical specification. Part 1: General rules* T/CEC 165.1—2018《电供暖系统技术规范 第1部分：总则》等12项标准	China Electric Power Research Institute Co., Ltd., State Grid Corporation of China, China Academy of Building Research Co., Ltd., Tongji University, Zhuhai Gree Electric Co., Ltd. 中国电力科学研究院有限公司、国家电网有限公司、中国建筑科学研究院有限公司、同济大学、珠海格力电器股份有限公司	Zhong Ming, Zhang Xinghua, Guo Bingqing, Wang Xin, Jin Lu, Cheng Ling, Yan Huaguang, He Sheng 钟鸣、张兴华、郭炳庆、王鑫、金璐、成岭、闫华光、何胜
28	5 standards including GB/T 32918.1—2016, *Information security technology—Public key cryptographic algorithm SM2 based on elliptic curves—Part 1: General rules* GB/T 32918.1—2016《信息安全技术 SM2椭圆曲线公钥密码算法 第1部分：总则》等5项标准	Beijing Huada Infosec Technology Co., Ltd., Information Engineering University of Chinese People's Liberation Army Strategic Support Force, DCS Center of Chinese Academy of Sciences 北京华大信安科技有限公司、中国人民解放军战略支援部队信息工程大学、中国科学院数据与通信保护研究教育中心	Chen Jianhua, Zhu Yuefei, Ye Dingfeng, Hu Lei, Pei Dingyi, Peng Guohua, Zhang Yajuan, Zhang Zhenfeng 陈建华、祝跃飞、叶顶锋、胡磊、裴定一、彭国华、张亚娟、张振峰
29	6 standards including GB/T 33668—2017, *Code for safety evacuation of metro* GB/T 33668—2017《地铁安全疏散规范》等6项标准	China Academy of Work Safety Sciences, China National Institute of Standardization 中国安全生产科学研究院、中国标准化研究院	Shi Congling, Qin Tingxin, Zhong Maohua, Lv Jingmin, Zhang Xingkai, Li Jian, He Li, Shi Jiehong 史聪灵、秦挺鑫、钟茂华、吕敬民、张兴凯、李建、何理、石杰红
30	GB/T 34906—2017, *Geological evaluating methods for tight oil* GB/T 34906—2017《致密油地质评价方法》	PetroChina Research Institute of Petroleum Exploration and Development, Exploration and Development Research Institute of PetroChina Changqing Oilfield Branch, Exploration and Development Research Institute of PetroChina Jilin Oilfield Branch, Sinopec Petroleum Exploration and Development Research Institute 中国石油天然气股份有限公司勘探开发研究院、中国石油长庆油田分公司勘探开发研究院、中国石油吉林油田分公司勘探开发研究院、中国石油化工股份有限公司石油勘探开发研究院	Zou Caineng, Zhu Rukai, Li Jianzhong, Tao Shizhen, Wu Songtao, Yao Jingli, Jiang Tao, Hu Zongquan 邹才能、朱如凯、李建忠、陶士振、吴松涛、姚泾利、江涛、胡宗全

Working safely in a pandemic

The newly published ISO/PAS 45005, *Occupational health and safety management – General guidelines for safe working during the COVID-19 pandemic* brings together international best practice on how to manage the health and safety of employees and stakeholders during the COVID-19 pandemic and is intended to complement any existing national guidelines and regulations.

Experts from 26 countries worked tirelessly to produce the guidelines in the form of a publicly available specification (PAS), which was approved by the 80 member countries of ISO's technical committee for occupational health and safety management. It provides practical recommendations on managing any risks arising from COVID-19 and is applicable regardless of an organization' location or status.

(Source: ISO)

ETSI releases middlebox security protocols framework specification

ETSI published a new specification, ETSI TS 103 523-1: Part 1 of the Middlebox Security Protocol (MSP) series, which defines the security properties of a Middlebox Security Protocol.

Middleboxes are vital in modern networks -- from new 5G deployments, with ever-faster networks that need performance management, to resisting new cyberattacks with evolved threat defense that copes with encrypted traffic, to VPN provision. Industry needs middlebox technology to keep pace with these and other evolving and diverse use cases. However, middlebox deployments often raise complex and multi-layered questions around the security, privacy and trust of using middleboxes.

MSP Part 1 (ETSI TS 103 523-1) addresses this gap by specifying a new security framework for middlebox protocols, allowing middleboxes to perform vital functions securely whilst keeping up with the rapid pace of technical development.

(Source: ETSI)

EN 16205:2020 ‘Laboratory measurement of walking noise on floors’

The recently published standard EN 16205:2020 ‘Laboratory measurement of walking noise on floors’ provides a harmonised method to determine noise radiated from a floor covering on a standard concrete floor when excited by a standard tapping machine that mimics walking sounds. This standard is a useful tool for manufacturers who wish to assess and improve the acoustic insulation of their floors, as well as to inform their consumers about it.

The system is quite simple and uses a tapping machine to imitate human steps on the floor of the upper room. Several sound pressure levels are measured both in the upper and lower rooms with the bare concrete floor either uncovered or covered with pads of the tested flooring/large specimens of it. In the upper room, the reverberation time (i.e. the time required for the sound to "fade away" in an enclosed area after the source of the sound has stopped) is determined in both cases. The walking sound pressure level is then calculated and normalised according to specific formulas.

(Source: CEN-CENELEC)

IEEE Standards Association Awards Outstanding Standards Development Achievements

On January 5, IEEE and the IEEE Standards Association (IEEE SA) announced the recipients of the 2020 IEEE Standards Association (IEEE SA) awards. The annual awards ceremony, available online as a virtual ceremony for 2020, recognizes entities and individuals for their leadership and participation in standards development.

IEEE SA awards are bestowed upon eligible individuals, IEEE SA members, and/or member organizations. To see the full list of 2020 IEEE SA Awards categories and recipients, please visit: **https://standards.ieee.org/news/2021/ieee-standards-association-awards-2020.html.**

(Source: IEEE)

Advanced Metering infrastructure (AMI) 2021

Virtual: February 24

The inaugural AMI virtual conference presents the opportunity to meet with like-minded AMI project directors from the major TSOs and DSOs across Europe, understand how they are designing their smart meter rollout in order to help accelerate your own rollout programme. You will understand successful second-generation implementation strategies, understand the progress with standardization in the industry and scale up your smart meter data analytics to support the wider organization.

For more information on the event website:

https://www.smartgrid-forums.com/forums/advanced-metering-infrastructure

ISO DIN Workshop on Esports

Virtual: March 2-3

Growing out of the humble beginnings of 1980s arcade caves and online gaming of the early 2000s, the number of eSport enthusiasts has grown exponentially in recent years. The wealth of opportunities this evolution has brought is countered by various challenges that need to be addressed in an international context.

This workshop seeks to bring together video game developers, publishers, tournament organizers, standardizers, and other interested stakeholders. Join us to explore the challenges facing eSports today, and analyze how international standards can help support this exciting new industry.

For more information on the event website: **https://www.iso.org/iso-din-esports.html**

The 16th edition of the Symposium on the Future Networked Car (FNC-2021)

Virtual: March 22-25

FNC 2021 panelists will examine the latest advances in the areas of vehicle connectivity, cybersecurity, applications of artificial intelligence (AI), and the global regulatory framework that will support deployment of highly automated mobility solutions. The Symposium will delve into the relationships between vehicle communications and automated/autonomous driving by analyzing the crucial role of regulatory frameworks to enable deployment of vehicles with highly automated driving products with extensive operational design domains (ODDs).

For more information on the event website: **https://www.itu.int/en/fnc/2021/Pages/default.aspx**

Putting Science into Standards (PSIS) 2021 Workshop 'Organ on Chip: Towards Standardization'

Virtual: March 28-29

The 2021 PSIS edition will be focusing on Organ-on-Chip (OoC) or Micro Physiological Systems (MPS), innovative devices that emulate human/animal biology and can reproduce one or more aspects of an organ's functionality. Among other benefits, they can lead to better testing of drugs and adapted treatments to genetic diversity, ethnicity, sex and age; reduce the cost of clinical trials and replace animal testing for cosmetic products, banned in Europe since 2013.

This event aims to facilitate the exchange of views on the future development of this technology, its application areas and stakeholder needs in order to identify how European standardization can support its safe, widescale deployment

For more information on the event website: **https://www.cencenelec.eu/news/events/Pages/EV-2021-20.aspx**

Internet of Things India expo 2021

March 24-26, New Delhi, India

IoT India 2021 expo will explore the impact of the Internet of Things (IoT) on industries, such as manufacturing, transport, supply chain, insurance, logistics, government, energy and automotive. Across sectors, we will see power grids, vehicles, homes, entire cities and manufacturing floors being connected. IoT India 2021 expo will focus on the fast-growing IoT infrastructure in India. With a special focus on automation, M2M communication, interoperability, analytics, new business models, this is the must-attend industrial event.

Industry leaders will converge at IoT India 2021 expo to impact global industry trends, demonstrate the latest solutions and highlight viable opportunities.

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

Exploration on standardization of commercial operation and management in ancient towns of cultural tourism

文旅古镇商业运营管理标准化探索

By Li Xiaowen, Wen Mengchuan and Ren Yan
李小雯 文萌川 任雁

The development of cultural tourism products as the core is an enduring topic. However, there are fewer high-quality projects and more duplicate projects at present. Actually, the tourism in ancient towns should be developed through joint commercial operation, as the operation of ancient towns and sustainable business mode are of vital importance.

This paper explores the use of standardization means to promote the seamless connection between commercial operation and tourism, so as to realize the agglomeration of people and commercial value, thus helping improve regional value.

Necessity of standardization

The restoration of ancient towns has great significance for helping people understand history, as they provide vivid evidence. However, not many ancient towns have been successfully operated, for there is a disconnection between their development and commercial operation and management.

On the one hand, high-quality cultural and tourism ancient towns are not created solely by hardware or capital; more importantly, operation ability is a decisive factor of success. For all operators of ancient towns, operation ability is the long-term embodiment of their core competitiveness. The whole industrial chain, systematic resource allocation and product service of cultural tourism ancient towns are the basic competitive threshold for the industry.

On the other hand, some regions and cities in China have developed applicable standards for local conditions according to the development characteristics of cultural tourism ancient towns. The standards developed by provinces such as Anhui, Guizhou, and Guangxi Zhuang Autonomous Region, and cities like Chengdu, Lijiang and Zhongshan have set relevant requirements for safety management and service refinement regarding place names, facilities and equipment of cultural tourism ancient towns, but the commercial operation and management of ancient towns of cultural tourism have not been included.

How to realize commercial operation in ancient towns

To develop cultural tourism in ancient towns successfully, commercial operation shall be applied with standardized operation of the project to promote the seamless connection between commercial operation and tourism, thus improving regional value and forming a sustainable business mode. Generally, standardization can be considered from the following aspects.

First, investment attraction is standardized and merchants are supported. The business operation of ancient town featuring cultural tourism partly relies on the business model, which has formed a whole-process control mechanism and business operation system of "attracting investment -- merchants selection-- livening business -- raising business".

According to the weight, it can be simply divided into two branches: attracting investment and livening business. That means to not only attract the merchants, but also help them to survive there. On the one hand, to attract investment, accurate positioning and effective process control are necessary, and corresponding investment promotion policies and communication strategies should be formulated for different brands, formats and levels to ensure the completion of investment promotion tasks.

On the other hand, the operation policy of "lowering the threshold, providing multiple services and giving priority" shall be made to help merchants survive in ancient towns. In particular, the operation policy aims to lower the threshold for preferential policies, let industry organization manage the merchants uniformly and create a convenient business environment for them to the greatest extent. The policy also helps create good operating conditions and outstanding characteristics of differentiation, establish main stores, main merchants and star merchants, so as to promote the regional commercial quality through month-on-month improvement.

Second, the ancient towns of cultural tourism must respond to consumer demand, combining good ecological situation with business forms. The key is to define the market subject according to the characteristics of the ancient town and increase the number of tourists and the revisiting rate.

For example, according to low and peak seasons, holidays, solar term situation, etc., clear and highly targeted plans for market players can be formulated to attract tourists and maintain visitor flow rate at ordinary times, and increase the number of tourists during activities.

Last, on the basis of standardized operation, the characteristic standards must be developed to maintain the cultural inheritance of the towns. A successful ancient town of cultural tourism are popular among tourists, as it is not only a well-preserved old town, but also a new town with rich cultural characteristics.

One of the characteristics is to maintain authenticity, so the operation of the towns should focus on the following aspects. First, resources should be integrated to embody the characteristics of the ancient town in each project, remove the barriers between the upstream and downstream of the industrial chain and related industries, thereby driving the development of the entire tourism sector at full speed. The emphasis of such characteristics lies in the food experience, for instance, local famous foods, special snacks, special foods cooked in ancient ways, etc.

Second, capital factor can be transformed into capable person factor. Through the localization of investment attraction and operating team, a platform is built to fully explore regional network, thus local people can operate shops displaying local culture to drive the growth of local economy.

Third, attach importance to the planning and operation of festival activities with local characteristics. The local culture can bring a large number of tourists to the town, directly constituting the marketing of the ancient town. It also embodies the integration of culture and tourism as well as the new people-oriented urbanization in the region and city. Especially, activities of traditional ethnic festivals and ceremonies can make tourists have a close interactive experience, and truly appreciate the value of local culture and the culture of ethnic minorities.

Outlook

Commercial operation and tourism are closely combined and inseparable in the construction and operation of cultural tourism ancient towns. The standardized development of ancient town of cultural tourism can achieve sustainable growth, safe capital investment and rapid regional economic growth, increasing people's income and improving their well-being.

Li Xiaowen

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2021

Chinese New Year, also called the Spring Festival is the most important holiday in China and to Chinese people all over the world. And 2021 is the Year of the Ox, the second of 12 zodiac animals.

According to the Lunar calendar, the Chinese New Year begins from January 1 to 15, which means it begins from February 12 to 26 on the Gregorian calendar.

HAPPY CHINESE NEW YEAR!

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