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Special report

BRICS Economic and Trade
Forum brings joint efforts
金砖国家经贸活动论坛在京举行

Spotlight

The 47th COPOLCO Plenary and
Workshops held in Haikou
COPOLCO第47次全体会议
及系列活动在海口举行

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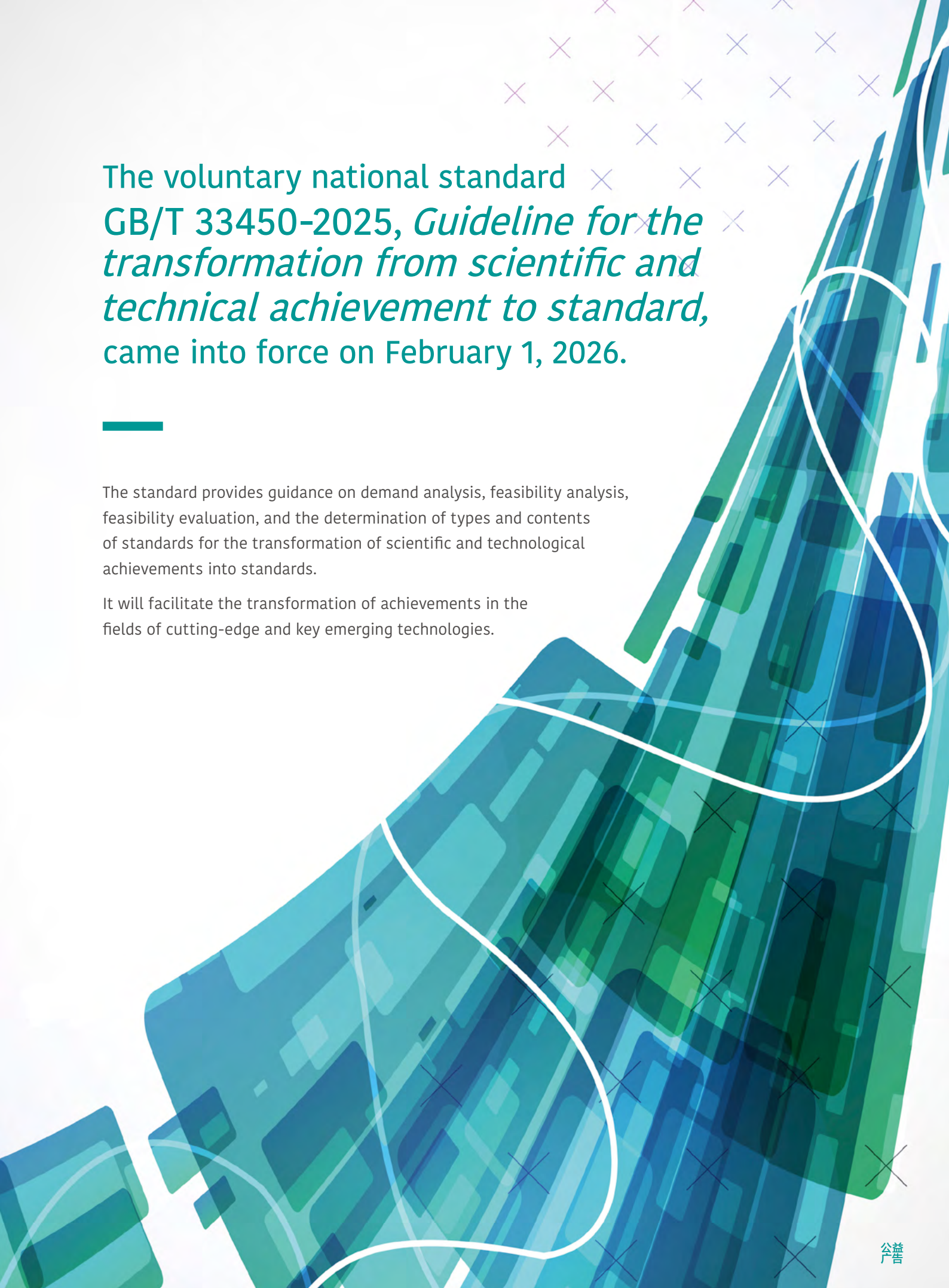
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The voluntary national standard
GB/T 33450-2025, *Guideline for the transformation from scientific and technical achievement to standard*,
came into force on February 1, 2026.

The standard provides guidance on demand analysis, feasibility analysis, feasibility evaluation, and the determination of types and contents of standards for the transformation of scientific and technological achievements into standards.

It will facilitate the transformation of achievements in the fields of cutting-edge and key emerging technologies.

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More consumer voices heard in standardization

How can more consumer voices be heard in standards development? How can more consumers and consumer organizations be encouraged to participate in the standardization process? These challenges are faced not only by many countries but also by ISO.

Eunsook Moon, Chair of ISO's Committee on Consumer Policy (COPOLCO) addressed this issue directly in both her interview with us and her keynote speech: "We welcome not only participation from national standards bodies at COPOLCO plenaries and workshops, but also direct involvement of consumer experts from relevant organizations."

COPOLCO has played a vital role in promoting consumer participation, strengthening international cooperation on consumer protection, and improving international standards and policies that safeguard consumer interests. In this issue, the SPOTLIGHT column features a series of reports on the 47th COPOLCO Plenary held in Haikou, South China's Hainan Province, in May.



“The Hainan Free Trade Port serves as a vital gateway for China’s opening-up in the new era. We are vigorously boosting and expanding consumer demand, advancing the application of standards, expanding institutional opening-up, and thoroughly carrying out the ‘Consumer Confidence in Hainan’ campaign,” said He Haiping, Deputy Director-General of Hainan Administration for Market Regulation.

Standards are more than technical specifications that ensure the quality and conformity of products and services. They also facilitate international trade and enhance global connectivity. The year 2026 marks a pivotal stage in the deepening of the BRICS cooperation mechanism and the pursuit of high-quality development across the expanded BRICS partnership. The BRICS cooperation mechanism has become an important platform for solidarity and cooperation among emerging market economies and developing countries. The SPECIAL REPORT column presents in-depth reports on the BRICS Economic and Trade Forum, hosted by the China Council for the Promotion of International Trade (CCPIT) in April.

In the GLOBAL VISION column, Dr. Zaki M. Al-Rubaei, Head of International Cooperation at the GCC Standardization Organization (GSO), explores how smart technical regulations are reshaping the future of standardization and quality infrastructure around the world.

We hope you enjoy this issue.



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Supplement 最新标准公告

(free of charge)

Newly approved national standards of P. R. China
(No. 19, 20, 21, 22, 23 and 24 released in 2026)
中华人民共和国国家标准公告 (2026年第19、20、21、22、23和24号)

SAMR improves the certification and accreditation standards system to support the achievement of dual carbon goals

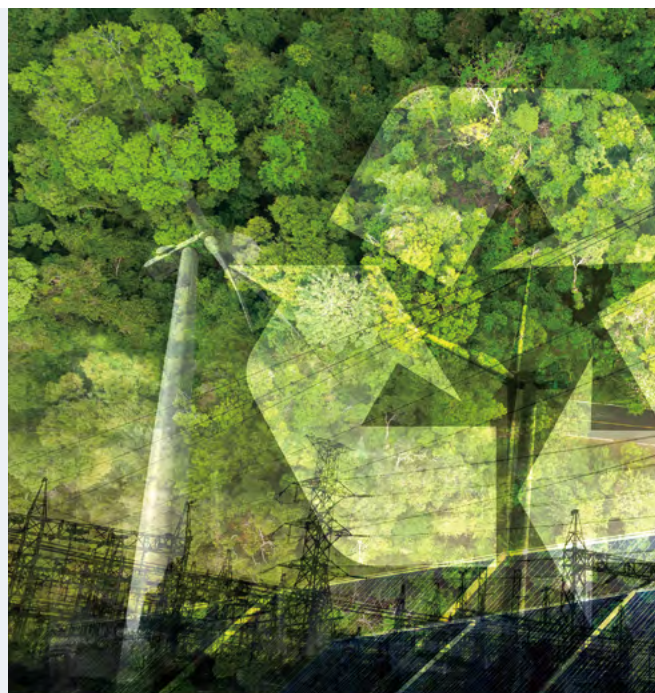
The State Administration for Market Regulation (SAMR) has been steadily advancing the development of a standards system for certification and accreditation in the greenhouse gas (GHG) sector, guided by the strategic goals of carbon peaking and carbon neutrality (“dual carbon goals” for short) and in alignment with requirements for higher-level, higher-quality energy saving and carbon reduction efforts.

According to the Department of Accreditation, Inspection and Testing of SAMR, 23 national standards related to GHG conformity assessment have been developed and released so far, with another 29 standards currently under development. These standards have provided effective technical support for strengthening corporate carbon management compliance, aligning carbon verification procedures of conformity assessment bodies with international norms, and promoting the green and low-carbon transformation of industries.

As China’s dual carbon goals continue to advance, there is an urgent need to develop a series of full lifecycle conformity assessment standards for key sectors such as electric power, iron and steel, and chemicals. These standards, leveraging conformity assessment techniques, will help enterprises accelerate their green transformation.

Since 2022, SAMR has been building and continuously refining a conformity assessment standards system for the dual carbon goals, with a focus on demand-side needs and in support of key priorities, including the “going global” strategy. Starting with major sectors such as cement, ceramics, chemicals, and iron and steel, SAMR has applied conformity assessment techniques to drive the development and implementation of GHG-related certification and accreditation sectoral standards. These efforts have delivered tangible results in helping enterprises scientifically assess their carbon emissions, identify emission reduction potential, and enhance their carbon management capabilities.

SAMR will continue to leverage the supporting and leading role of conformity assessment standards in advancing the achievement of the dual carbon goals, improve the standards system, promote standards application, and contribute to the comprehensive green transformation of economic and social development.





A number of Chinese national standards take effect on July 1

A total of 550 national standards have come into force since July 1. Key national standards cover the fields of the safety and security integration of smart factories, the safety of construction machinery and equipment, road traffic management, filling fiber products, intelligent textile products, the optical radiation safety of consumer laser pointers, greenhouse gas emissions from industrial enterprises, green product evaluation for water purifiers and pallets, hearing aids safety, and lightning disaster prevention. They will provide support for leading industrial transformation and upgrading, safeguarding production and public safety, protecting consumer rights and interests, and facilitating the green and high-quality development of the national economy.

Among them, a series of national standards for the safety and security integration of smart factories will offer technical foundation and practical guidance to relevant parties including designers, constructors, operators and safety supervision authorities of smart factories, supporting the safe and stable operation of smart factories.

GB/T 46933.1-2025, *Safety and security integration of smart factory—Part 1: General requirements*, specifies requirements for all stages of the safety and security of smart factories, including objects, lifecycle management, definition and objective setting, risk assessment, requirement allocation and design, verification, operation and maintenance, modification and change, decommissioning and retirement.

GB/T 46933.2-2025, *Safety and security integration of smart factory—Part 2: Risk assessment requirements*, stipulates general requirements, preparatory activities, procedures, and documentation rules for the risk assessment of safety and security integration of smart factories.

GB/T 46933.3-2025, *Safety and security integration of smart factory—Part 3: System collaborative design requirements*, defines the architecture, objectives, principles, and specific requirements for the system collaborative design of safety and security integration of smart factories.

GB/T 46933.4-2025, *Safety and security integration of smart factory—Part 4: System evaluation requirements*, specifies general rules, implementation specifications, and reporting requirements for the system evaluation of the safety and security integration of smart factories.

Conference on Synergetic Development of Standardization and Technological Innovation held in Beijing

The Conference on Synergetic Development of Standardization and Technological Innovation, together with the inaugural ceremony for the *Journal of Standardization and Artificial Intelligence Standardization*, was held in Beijing on June 29. Themed “the synergy of standardization and technological innovation leads the development of new quality productive forces”, the conference was co-hosted by the China National Institute of Standardization (CNIS) and the Haidian District People’s Government of Beijing, and supported by the China Standardization Press Co., Ltd. (CSP).

Wei Hong, Director-General of the Department of Standards Innovative Management of SAMR, Tian Wei, Second-level Inspector of the Department of Information and Publicity of SAMR, Sui Xiaofeng, Deputy Head of the Haidian District People’s Government, and Wang Kun, President of CNIS and Director-General of the National Center of Standards Evaluation, SAMR, attended and addressed the conference.

Lu Jun, Academician of the Chinese Academy of Engineering and Chief Scientist of the China Electronics Technology Group Corporation (CETC), and Lian Yubo, Academician of the Chinese Academy of Engineering, Chief Scientist of BYD, and Dean of the Automotive Engineering Research Institute of BYD, delivered keynote speeches.

At present, a new round of global technological revolution and industrial transformation is accelerating, with frontier technologies advancing at an unprecedented pace. The supporting and leading role of standards in scientific and technological innovation is becoming increasingly prominent, and the need for integrated planning and coordinated advancement of standards development and technological innovation is more urgent than ever. In their addresses, relevant officials put forward expectations and requirements for further clarifying the pathways for synergistic development between standardization and technological innovation, as well as for enhancing the quality of domestic academic journals in the field of standardization.

During the conference, CNIS and the Haidian District People’s Government signed a strategic cooperation agreement. The agreement is grounded in Haidian’s industrial development needs, with AI as the driving force. The two parties will collaborate on standardization research, project development, talent cultivation, international standardization cooperation, and brand events, with a focus on modern industrial sectors such as advanced technology and high-end services. Together, they will systematically identify technological innovation achievements that are ready for standardization, and jointly convert cutting-edge technologies and products into standards, and promote their application.

The inaugural issue launch ceremony for the *Journal of Standardization and Artificial Intelligence*



Standardization, which are published by CSP, was held during the event. The official launch of these two journals marks a new breakthrough in China's academic landscape for standardization. The two journals will systematically advance theoretical innovation, methodological breakthroughs, and practical validation in the field of standardization, striving to build a high-level, international, and authoritative academic exchange platform. They will provide robust academic support and intellectual underpinning for the in-depth implementation of China's standardization strategy and building national strengths in quality.

China holds the secretariat of IEC/TC 107



IEC has recently approved the establishment of the secretariat of IEC/TC 107, *Process management for avionics*, in China, which is the first IEC secretariat held by China in the aviation sector.

IEC/TC 107 is IEC's sole technical committee in the aviation field, dedicated to the development of international standards for process management of avionics systems and equipment, covering commercial, civil, and military aviation electronics. To date, IEC/TC 107 has developed a number of international standards in areas such as avionics component management, single-event effects on avionics equipment, and lead-free soldering processes. These standards not only provide systematic guidance for enhancing the quality and reliability of avionics equipment, but also serve as critical technical specifications and quality assurance benchmarks for the global avionics industry.

It is a new starting point for China to further engage in international standardization work for avionics process management. It will facilitate the effective alignment of China's advanced domestic technological achievements with international standards. China looks forward to working with all member countries to make further contributions to international standardization in this field.

ISO/TC 107/SC 10 on chemical vapour deposition coatings established

The ISO Technical Management Board (ISO/TMB) has recently approved the establishment of a new subcommittee ISO/TC 107/SC 10, *Chemical vapour deposition coatings*, with China holding the secretariat.

Chemical vapour deposition (CVD) coating is a technology that “grows” high-performance thin films on material surfaces. Through chemical reactions of gaseous precursors, it forms a dense, firmly adherent functional coating on component surfaces, imparting outstanding properties such as high hardness, wear resistance, corrosion resistance, high-temperature tolerance, and high optical transmittance. Leveraging these characteristics, CVD coatings can be applied in critical sectors, including aerospace, high-end equipment manufacturing, semiconductors, optoelectronics and displays, automotive manufacturing, and energy and chemicals, making it a core technology for ensuring the performance and reliability of key components.

The subcommittee will focus on the systematic development of international standards, including terminology and definitions, process specifications, test methods, quality evaluation, and environmental safety aspects of CVD coatings. China will vigorously build an international cooperation platform, and pool the expertise of experts from around the world, providing robust support for standardizing the performance of CVD coating products globally, safeguarding the service safety of critical components, and promoting the green and low-carbon development of related industries.



ISO regional training course held in Qingdao



The first ISO regional training course 2026 was successfully held in Qingdao recently, under the guidance of the National Standardization Administration of China (SAC), hosted by the Qingdao Municipal People's Government, and co-organized by ISO and the Qingdao Institute of Standardization.

The training focused on the development of national standardization strategies, to enhance the capacities of participating countries in developing such strategies and expand the pool of standardization professionals applying ISO methodologies. Erich Kieck, Head of the Capacity Building Unit at the ISO Central Secretariat, and Zhang Yongyan, Director of the Qingdao Administration for Market Regulation, attended the opening ceremony and delivered speeches.

Erich Kieck noted that ISO has developed a long-term action plan for developing countries, and that Qingdao, as an important partner of ISO, has been actively supporting the implementation of this plan, making significant contributions to strengthening global standardization capacity. A team of senior experts from ISO gave lectures covering ISO methodologies for national standardization strategy development and the latest progress in this area. A total of 21 participants attended the four-day training, including representatives of standardization bodies from nine countries, including Morocco, Sierra Leone, Tanzania, Kenya, and Peru, alongside representatives from domestic research institutes and enterprises.

During the training, the ISO expert team also held meetings with officials from SAMR (SAC), as well as representatives from relevant local institutions. In addition, they conducted exchange sessions with representatives from several local enterprises, offering one-on-one guidance on international standardization and talent cultivation.

This training not only strengthened the capacities of participating countries in developing standardization strategies, but also served as a platform for the deep integration of international experience and Chinese practice.

The 4th China-South Asia Standardization Cooperation Working Conference held in Chengdu

The 4th China-South Asia Standardization Cooperation Working Conference was held on July 8 in the Chengdu High-tech Industrial Development Zone, co-hosted by the Chengdu Administration for Market Regulation and the Chengdu High-tech Industrial Development Zone Administrative Committee. Nearly 200 participants gathered in Chengdu, including high-level officials from standardization bodies of South Asian countries such as Sri Lanka, Bangladesh, and the Maldives, representatives from IEC, leading standardization experts and representatives from the industry at home and abroad.

Under the theme “Standards Innovation Drives Industry Development, Standards Openness Promotes Economic and Trade Circulation,” the conference built a full-chain practical channel for China-South Asia standardization cooperation, providing new momentum for deepening regional economic and trade ties and advancing the high-quality development of the Belt and Road Initiative.

The meeting noted that Chengdu will fully leverage its geographical advantage of connecting Southwest China and radiating into South Asia, positioning itself as a pioneer for China-South Asia standards connectivity. The meeting further put forward three initiatives: first, improve the regular cooperation mechanism; second, expand cooperation in key areas such as new energy and digital economy; third, deepen the exchange and mutual learning of standardization professionals, to promote shared regional prosperity through high-standard connectivity.

The 4th China-South Asia Standardization Cooperation Working Conference (Chengdu) Initiative was officially unveiled. Participants reached significant consensus on leveraging standards to serve economic and trade circulation, empower industrial development, and underpin sustainable development.

More fruitful achievements were made at the conference, including one cooperation agreement, three letters of intent for cooperation, speeches made by authoritative experts, bilateral meetings on standardization cooperation, and specific activities for industry negotiations.





The 47th COPOLCO Plenary and Workshops held in Haikou

COPOLCO第47次全体会议及系列活动在海口举行

By Jin Jili
文/靳吉丽

The opening ceremony of the 47th Plenary of ISO's Committee on Consumer Policy (COPOLCO) was held in Haikou City, the capital of South China's Hainan Province on May 26, 2026.

Deng Zhiyong, Vice Minister of the State Administration for Market Regulation (SAMR) and Administrator of the National Standardization Administration of China (SAC), Li Feng, Vice Governor of the Hainan Provincial People's Government, and Eunsook Moon, Chair of COPOLCO, attended and addressed the opening ceremony. Wang Kun, President of the China National Institute of Standardization (CNIS) and Director-General of the National Center of Standards Evaluation, SAMR, presided over the event.

International standards serve as an important technical foundation for the global governance system as well as economic and trade cooperation and development. Focusing on the concerns of consumers worldwide, COPOLCO plays a pivotal role in facilitating consumer participation, advancing international cooperation on consumer protection, and improving international standards and rules concerning consumer policies.



China attaches great importance to consumer protection and standardization work in the consumption sector, actively supports various work of COPOLCO, and consistently advances the alignment and mutual promotion of domestic consumption governance and international standardization activities. By the end of 2025, China had launched approximately 230 projects for national standards development and revision in the areas of consumption and people's livelihood, covering consumer product quality and safety, service quality, digital consumption, age-friendly adaptation and children's safety.

Over 120 participants attended the opening ceremony, including leaders from relevant departments of SAMR, the Hainan Administration for Market Regulation, CNIS, and the Hainan Academy of Inspection and Testing (HAIT), as well as representatives from domestic and foreign standardization bodies, consumer organizations, industrial institutions, research institutes, and enterprises.

The 47th COPOLCO Plenary and Workshops lasted for five days until May 29. Various events were held, including meetings of the Chair's Advisory Group and other working groups, and activities related to capacity-building training, the review of the annual work report, and international exchanges.

As a highlight of a series of events, the thematic forum on "Standards empowering consumption upgrade and leading high-quality development of the service industry" was held on May 29. The forum was co-hosted by CNIS and HAIT, which gathered around 300 representatives from ISO, government departments at all levels, as well as domestic and foreign standardization bodies, consumer protection groups, research institutes, industry associations, and enterprises.

Fu Wenbiao, First-level Inspector of the Standards Innovative Management Department of SAMR, and Zhu Ning, Director-General of the Hainan Administration for Market Regulation and the Hainan Intellectual Property Administration, attended and addressed the event. Chen Weiliang, Vice President of CNIS, presided over the session.

The forum held heated discussions on topics such as the upgrading of service consumption, integration of manufacturing and services, and high-standard opening-up of trade services. It aims to build an international exchange platform, share practical experience in standardization, and advance standardization to better support the improved consumption environment and high-quality development of the service sector.

The event featured three thematic exchange sessions. The first session themed “Consumer rights protection in new forms and scenarios of service consumption” was presided over by Chen Weiliang. Participants discussed the COPOLCO working mechanism and consumer rights protection, the application of management system standards, the development of a trustworthy consumption environment, and the standardization practice on emerging service consumption models. They stressed translating consumer concerns into sound service rules through standardization by focusing on key issues such as information disclosure, service performance, dispute settlement, and remedy mechanisms under new business formats and scenarios.

The second session focusing on “Standardization empowering the integration of manufacturing and services” was moderated by Adrian Popa, ISO Technical Programme Manager. Discussions focused on scenario-driven standardization, integration of manufacturing and services, capacity building of SMEs, digital and intelligent transformation of industrial supply chains, practice on new retail digitalization, and standardization implementation by multinational corporations. This fully demonstrated the significant role of standardization in underpinning product quality, specifying technical requirements, advancing industrial coordination, improving service experience, and advancing the in-depth integration of manufacturing and services.

The last session themed “Standardization leading high-level development of service trade” was presided over by Lin Gang, Deputy Director-General of the Hainan Administration for Market Regulation. Participants discussed the development of the Hainan Free Trade Port, urban consumption governance, and the evolution of standardization in trade. After that, a roundtable featuring the coordinated development of institutional innovation and consumer governance in pilot free trade zones (ports) was held. Representatives exchanged on the mutual recognition of cross-border consumption standards, legal frameworks for institutional opening-up, construction of hubs for opening-up, and digital empowerment of cross-border trade, exploring practical paths to leverage standardization to facilitate service trade, coordinate consumption governance, and internationalize the market environment.

During the event, the Hainan Consumer Council, together with multiple industrial associations in the province, launched the initiative on forging quality benchmarks, and fostering consumer confidence, which called on relevant industrial organizations and business entities to strengthen the awareness of quality, integrity and service, and jointly foster a consumption environment that is safe, reliable, standardized, orderly, high-quality and convenient.

Based on the international platform of COPOLCO, this forum showcased China’s practice and exploration in service consumption standardization, trustworthy consumption environment development, integration of manufacturing and services, and opening-up and cooperation in service trade. It also provided a critical opportunity to deepen exchanges and cooperation on standardization-driven consumption upgrading and high-quality development of the service industry.





Founded in 1978, COPOLCO is one of ISO's three major policy committees, which now has 136 members. Since China became a participating member of COPOLCO in 1979, Chinese experts have actively participated in the related working groups for services and consumer standards actions and the revision of ISO/IEC Guide 14:2018, *Products and related services—Information for consumers*, contributing Chinese wisdom to the incorporation of consumer demands, transparency of consumer information, development of consumer participation mechanisms, and other related topics.

As a national-level standardization research institute, CNIS has long undertaken domestic technical support work for COPOLCO through its standardization research, technical coordination and international liaison activities on consumer protection, service standardization, user experience, quality evaluation and consumption environment development.

Looking ahead, CNIS will strive to leverage outcomes of a series of events for standards development, practical tools, scenario-based applications, and international cooperation in the future, contributing to optimizing the consumption environment, advancing the high-quality development of the service sector and building the brand of "Chinese Services." 

Consumer rights protection in new forms and scenarios of service consumption

Adhering to standards leadership, deepening consumer confidence, building Hainan consumer brands with global influence

He Haiping, Deputy Director-General of the Hainan Administration for Market Regulation



The Hainan Free Trade Port serves as a vital gateway for China's opening-up in the new era. We are vigorously boosting and expanding consumer demand, advancing the application of standards, expanding institutional opening-up, and thoroughly carrying out the "Consumer Confidence in Hainan" campaign.

I would like to share our practical experience in advancing the "Consumer Confidence in Hainan" campaign:

First, Hainan took the lead nationwide in fostering consumer confidence by implementing the Regulations of the Hainan Free Trade Port on Combating Consumer Fraud, and putting in place long-term oversight and rapid response mechanisms to curb overcharging and fraudulent practices targeting tourists.

Second, Hainan improves the mechanisms for resolving consumer disputes. We have established an inter-departmental coordination mechanism for consumer rights protection to address cross-sector consumer grievances.

Third, Hainan has built a standards system for consumer confidence. A standard framework covering five dimensions—trusted quality, trusted pricing, trusted rights protection, trusted services, and trusted safety—has been established.

Fourth, Hainan has bolstered the implementation of consumer confidence standards. We have developed an intelligent supervision platform for the campaign and launched a WeChat mini-program, enabling consumers to submit online reviews and file complaints remotely. Regulators keep real-time track of commitments fulfilled by accredited consumer confidence entities.

Fifth, Hainan has mobilized the whole of society to jointly oversee business operations.

Notable outcomes delivered by the campaign are as follows: First, the "Consumer Confidence in Hainan" model has been listed among China's top five national cases for optimizing the consumption environment. It covers over 20 key sectors, including duty-free shopping, retail, tourism, transportation and commerce, with 45 designated consumer confidence business districts and 155,000 accredited consumer confidence entities established.

Second, accredited consumer confidence entities and business districts have fully implemented the diversified consumer dispute resolution mechanisms. A total of 563 consumer rights service stations, 1,062 physical stores offering unconditional returns, and 1,075 enterprises equipped with online consumer dispute settlement channels have been set up, allowing consumers to defend their rights conveniently.

Third, the consumption environment has seen marked improvements. In 2025, consumer complaints and reports received by market regulatory authorities across the province witnessed a year-on-year drop of 7.59%, with consumer satisfaction steadily rising.

Consumer rights, standards and COPOLCO

Eunsook Moon, Chair of ISO/COPOLCO



Hainan is an excellent place for this discussion, as it is a free trade port. It is expanding its digital economy and digital trade, which is opening up new models of digital service consumption. This gives Hainan an important opportunity to demonstrate how digital services can grow with consumer trust. That trust must be built on consumer rights and standards. The goal is to ensure that consumers can trust digital services and choose them with confidence.

Digital services bring great benefits, but they also bring hidden risks. They make services faster, easier, and more personalized, yet consumer trust can be fragile. Digital services are continuous but complex. They are personalized, but consumer choices may be shaped in subtle ways. There may be borders, but accountability is not always clear. They are innovative, but some consumers may be left behind.

This is why consumer trust does not happen by itself. It must be built on consumer rights and standards. If trust does not emerge naturally, then it must be built into digital services. Consumers need transparent information. They need to understand how services are designed, what data is used, and who is responsible. They need clear accountability, inclusive access, and effective redress.

When something goes wrong, consumers should know who is responsible and how to get help. This is protection by design. This is trust by design.

Standards do not solve every problem. Consumer protection also requires good policies, responsible businesses, strong enforcement, and effective remedies. But standards can provide a practical foundation for trusting digital services. They can help translate consumer rights into clear safeguards. They can set expectations for fairness, safety, transparency, and accountability. They can support protection by design. They can also help build trust across the market.

In this way, standards can help digital innovation grow without hidden risks. COPOLCO has already worked on service-related consumer issues, including service standards, consumer information, e-commerce, online reviews, and inclusive services—especially for all consumers. SAC has been an important partner in bringing service-related consumer issues into ISO/COPOLCO's work.

Strengthening high-quality consumer rights protection, supporting new forms and scenarios of service consumption

Sun Yu, Director of the Consumption Supervision Department, China Consumers Association (CCA)



New business forms and consumption scenarios are reshaping residents' lifestyles. We shall deliver targeted consumer rights protection to strike a win-win balance between industrial growth and rights safeguards, and foster high-quality development of the consumer market.

I would like to share my perspectives in two aspects. On the one hand, foster new business forms and scenarios of service consumption to fuel economic growth and improve people's wellbeing. From an economic perspective, surging service consumption has become the primary engine of consumption growth. In the first quarter of this year, retail sales of services rose by 5.5% year-on-year, far outpacing the 2.2% growth in retail sales of physical goods.

On the other hand, strengthen high-standard consumer rights protection to address consumption woes arising from new business forms and scenarios. New formats and scenarios have brought transformative shifts to consumption, alongside fresh challenges for consumer rights protection. For instance, incomplete standards governing emerging industries create hurdles in liability identification and slow dispute resolution. Some online platforms engage in false advertising and forced tie-in sales.

Faced with these emerging challenges, we must adhere to a problem-oriented approach, pursue innovative thinking, and build a full-chain, diversified and highly efficient consumer rights protection system.

First, we should accelerate legislative research and standards development to fill regulatory gaps.

Second, we will further roll out the "CCA Smart 315" digital complaint platform, advance research on big data from consumer complaints, establish cross-departmental joint supervision mechanisms, and build a rights protection framework featuring rapid response and expedited handling.

Third, we will launch targeted, diversified consumer education campaigns to disseminate consumption knowledge and release consumption alerts, helping consumers develop rational consumption mindsets and fully access premium consumption services under new business models and scenarios.

Fourth, we will encourage industrial associations to revise self-regulation codes, strengthen case exchanges with judicial authorities, and advance a multi-stakeholder governance framework for consumer rights protection.

Standards as a bridge: How ISO management systems standards enable servitization in Zimbabwe

Loveness K Masveure, Technical Secretary of the Standards Association of Zimbabwe



In Zimbabwe, we have successfully adopted and implemented a number of management system standards, including ISO 9001 and ISO/IEC 20000.

The Standards Association of Zimbabwe encourages this through the National Quality Awards, which recognize firms that excel in manufacturing, services, and service quality.

For example, for a pump manufacturer in Zimbabwe, ISO 9001 ensures that every pump is manufactured with documented quality control and full traceability. ISO 20000 defines how you monitor the pump remotely—for example, how it responds to faults within the system and how it reports monthly on uptime.

When you integrate these two standards, the service data feeds back into manufacturing, allowing improvements in the next production batches. The result is that you can sell with confidence.

Why does this matter? First, organizations are using this integration to create new revenue streams, with approximately 30–50% of revenue coming from services. Second, it ensures customer retention. Third, it helps organizations gain access to the African Continental Free Trade Area (AfCFTA) programs, as many have indicated that integrated management systems are required qualifications for regional contracts. Fourth, it reduces risk, because auditable processes help reduce warranty claims, legal exposure, and operational chaos. Fifth, it supports alignment with industrial cross-policies.

Now, what problems have we seen among Zimbabwean manufacturers? There is a new shift from only manufacturing to combining manufacturing with services. However, many systems still run production and services separately. Another problem is trust in contract enforcement, because strong legal frameworks are needed for leasing and asset recovery. Without standardized processes, service delivery becomes chaotic and expensive.

Nevertheless, there are opportunities for Zimbabwe. Our policies are integrating value addition and developing industrial services, such as transport engineering services and ICT. Another opportunity is to enhance our participation in global value chains.

Standardization supporting the development of new forms of service consumption: Practice and reflections

Cao Lili, Director of the Division of Service Standardization, CNIS



Against the backdrop of rapid global economic growth, digitalization, intelligentization and integration have become defining features of service consumption. A constant stream of new business forms and models has emerged, greatly diversifying consumer supply while reshaping people's consumption patterns and daily life experiences. China's service consumption sector is entering an unprecedented period of strategic opportunities.

In 2024, the State Council issued the first special policy targeting service consumption, namely the Opinions on Promoting the High-quality Development of Service Consumption. In 2025, per capita expenditure on services accounted for 46.1% of China's total household consumption spending. The National Conference on the Service Industry held this April laid out clear arrangements for boosting consumer services and improving the quality and expanding the scale of consumption.

We are fully aware that innovations in new service consumption forms usually outpace the refinement of relevant regulations, giving rise to a host of challenges. The more robust these new forms grow, the more imperative it is to build a sound regulatory framework to safeguard their development. Standards do not constrain innovation; instead, they set clear safety thresholds and establish baseline benchmarks for service quality.

We will strengthen top-level design for service standards and align them with international standards. For instance, China took an active part in the development and revision of ISO/IEC Guide 76. The revised ISO/IEC Guide 76:2020 offers methodological guidance for fully incorporating consumer needs into standards development processes. China has adopted and implemented this guide identically, ensuring consumer protection is embedded at the initial stage of drafting every service standard.

In recent years, we have steadily built and improved service consumption guarantee systems for key sectors. For example, we led the development of GB/T 45747-2025, *Aging societies—General requirements and guidelines for older person inclusive digital economy*, which helps foster a safer, more inclusive global digital consumption landscape.

Standardization empowers the integration of manufacturing and services

Scenario-driven standardization empowers development

Ma Dejun, Vice Chairman of the China Battery Industry Association, Chair of the IEC SyC AAL and the IEC SC 59N



The integration of manufacturing and services has the following features. First, manufacturing is transforming from conventional models to service-oriented ones. Second, the industrial Internet provides instrumental support for industrial paradigm transformation. Third, as AI deeply integrates with manufacturing and services, it offers intelligent decision-making support in the full manufacturing process through machine learning and big data analysis. Last, the Manufacturing-as-a-Service (MaaS) model enables global sharing of corporate manufacturing resources via blockchain and distributed architectures.

Industrial integration has given rise to new business forms such as elderly care robots, new energy vehicles and smart products. Supported by the IEC Systems Committee on Active Assisted Living (IEC SyC AAL), elderly care robots adopt a “hardware robot + software service” model to deliver smart services including daily living assistance, health monitoring and social companionship. Batteries for new energy vehicles enable power consumption prediction and effectively alleviate range anxiety. Furthermore, intelligent connectivity and autonomous driving technologies for new energy vehicles greatly enhance the travel convenience of the public.

IEC 63310:2025, the world's first standard for AAL robots, has been released, and the standard for humanoid robots will soon enter the enquiry stage. International standards fully address potential risks brought by the application of intelligent technologies, and have become a core solution to industrial pain points. A series of guides developed by ISO and IEC offers guidance on safeguarding consumer safety. In the field of household appliance safety, IEC TC 61 on the safety of household and similar electrical appliances invites experts from the Consumers International to engage in standards development, making standards aligned with people's living needs.

In the future, efforts should be made to strengthen the coordination and mutual recognition of international standards, proactively plan the standards development in emerging sectors, boost substantive consumer participation in standards development, and refine mechanisms for standards implementation, dynamic evaluation and iterative upgrading. Standardization will thereby empower industrial integration and safeguard consumer safety.

Connecting manufacturing and services through standards: The impact on SMEs and consumers –Some examples from Brazil

Eduardo São Thiago, Senior Advisor to the Board of the Brazilian Association of Technical Standards



Standards are essential for integrating manufacturing and services by creating a common framework for interoperability, quality, safety and efficiency.

SMEs represent around 96% of Brazilian companies and are responsible for most new jobs. SMEs are key drivers of economic growth, innovation and local development. This dynamic highlights the importance of standards and integration mechanisms capable of connecting large industries, service providers, and small businesses within increasingly interconnected value chains.

The service sector plays a central role in Brazil's SME ecosystem with a significant share of small businesses and individual entrepreneurs operating in areas such as food services, healthcare, and tourism.

The strong connection between SMEs and services highlights the increasing integration of products, services and digital solutions within the Brazilian economy. In this context, standards are essential to ensure quality, interoperability, safety and consumer confidence, while also facilitating business integration, operational efficiency and access to broader national and international markets.

For example, the standardization technical committee on food trucks was established in 2016, and more than half of its members were consumers. Monthly meetings were fundamental for manufacturers to see the real needs of service providers and for consumers to be able to come up with a solution together. From the beginning, it identified market needs and created a satisfactory plan. In 2018, a standard was published.

Tourism plays a significant role in the Brazilian economy, and generates more than 2.3 million formal jobs. With tourism accounting for most sector revenue, Brazil has developed a broad ecosystem integrating transportation, services and leisure activities. The standards related to adventure tourism management systems, professional competence and customer information help strengthen consumer confidence, improve service quality and support the sustainable development of tourism activities.

The integration of manufacturing and services is reshaping modern economies by creating more connected, efficient and innovation-driven ecosystems. In this context, these standards play a fundamental role in promoting interoperability, trust, transparency and inclusion.

Standardization drives the innovation development of service-oriented manufacturing

Xie Kuan, Vice President of the Institute of Service-oriented Manufacturing, China Electronics Product Reliability and Environmental Testing Research Institute, MIIT



Service-oriented manufacturing stands as the main arena for advancing the integration of manufacturing and services. In 2016, the Special Action Guide for Developing Service-oriented Manufacturing was released by the Ministry of Industry and Information Technology (MIIT) as the first policy for service-oriented manufacturing. In September 2025, the Implementation Plan for Further Boosting the Innovative Development of Service-oriented Manufacturing (2025–2028) was released, which drives the shift of industries from traditional production-based manufacturing to “manufacturing + services” and “products + services”, and integrates service elements into industrial and value chains.

Service-oriented manufacturing injects momentum into the development of a modern industrial system. On the one hand, service elements empower manufacturing to upgrade toward higher knowledge intensity and added value, improving industrial development and core competitiveness. On the other hand, it shifts upstream and downstream cooperation of industrial chains from linear collaboration to networked coordination, helping industrial chains boost coordination efficiency and risk resistance, and enhance resilience and security. It also transforms manufacturing toward high-quality development. At present, service-oriented manufacturing focuses on life-oriented, production-oriented and public scenario-oriented services.

In terms of development status, the service-oriented manufacturing in China reached the world's top level in 2023. Data analysis of 3,670 listed manufacturing enterprises shows that over 54.5% of them have conducted service-oriented manufacturing businesses, with equipment manufacturing, electronic information and consumer goods leading in maturity.

Standardization is vital to the innovative development of service-oriented manufacturing. In 2020, the Guiding Opinions on Further Promoting the Development of Service-oriented Manufacturing was issued to specify requirements for its standardization development. In 2024, the Guide for the Construction of the Service-oriented Manufacturing Standards System was issued by MIIT to comprehensively arrange relevant standardization work. In 2025, the working group on service-oriented manufacturing standardization of MIIT was established. It will optimize the standards system, jointly build the industrial ecosystem and deliver value, sharing experience and achievements worldwide through international platforms.

Digital and intelligent transformation of industrial supply chains—Standardization empowering industrial synergy and integrated development

Ding Deming, Vice President of the JINGDONG Industrials



The integration of manufacturing and services is not a simple combination, but an in-depth embedding. Manufacturing covers the full industrial chain of research, production, supply, sales and services. The mere combination of business forms will cause bottlenecks and blockages, whereas full-chain embedding and integration enable the efficient coordination of business formats, with standardization as the core foundation.

JINGDONG Industrials has operated independently since 2017, and it serves as a provider of industrial supply chain technology and service solutions. It has long focused on connecting supply and demand to build high-speed digital industrial supply chains. It links upstream and downstream industrial players, and constructs an integrated digital and intelligent supply chain supported by five standards systems.

The commodity standards system is the core foundation. JINGDONG Industrials launched internal standardization of industrial products in 2019 and put industrial standardization application in place in 2020. It developed sectoral standards for product categories and e-procurement together with state-owned and central enterprises, and empowered small and medium-sized manufacturers based on a mature standards system. To date, it has realized data interconnection with over 200,000 upstream suppliers.

JINGDONG Industrials has built a tiered fulfillment standards system covering instant delivery, 4-hour delivery, 211 time-limited delivery, 48-hour delivery and 72-hour delivery, which ensures predictable delivery across industrial supply chains.

In addition, JINGDONG Industrials has established another three standards systems: the quality compliance standards system, which enables evaluability and traceability across suppliers, products, pricing, fulfillment and settlement; the data intelligence standards system, which drastically boosts the efficiency in industrial development, product matching and full-chain decision-making; and the solution standards system, which primarily empowers large corporate clients and gradually extends to MSMEs.

In the future, digital and intelligent industrial supply chains will show full-chain integration driven by standardization-enabled intelligence and intelligence-fueled industrial coordination, with priority given to horizontal industrial collaboration among MSMEs. JINGDONG Industrials wishes to collaborate with industrial associations and industrial partners to co-build industrial standards systems and jointly shape a new landscape for digital and intelligent industrial development.

Practice and reflections on Weidian 24 new retail digitalization

Pan Guochang, Vice President of the Weidian Group



As business models evolve, the manufacturing sector is shifting from merely supplying products to offering integrated services, while the services sector is moving away from reliance on human experience toward digital, online, and intelligent operations. In the past, selling a piece of equipment meant the delivery was complete upon handover. Today, however, there is a continuous stream of system and data services behind devices, sustaining the consumer. What enterprises deliver is no longer merely a product, but a whole suite of ongoing operational capabilities.

Offline retail provides a typical example. Weidian 24 helps convenience stores through unmanned intelligent transformation. Through its enabling solutions, stores can extend operating hours and offer all-day service to consumers. Under this model, the consumer journey proceeds as follows: scan to enter, self-help shopping, self-help checkout, cloud-assisted support, and exit. The back-end operations involve recording of device-sensing systems, remote response, data accumulation, and operational optimization.

In the course of promoting our services, we have established standards in three aspects:

First, technical standardization. We have developed unified delivery standards covering the store's basic environment, smart hardware configuration, system integration capabilities, and operational support mechanisms. Through standardization, we have transformed store renovation, which used to rely on individual expertise, into a reproducible, deliverable engineering system.

Second, service process standardization. We have set uniform service norms for the entire consumer journey from entry and shopping to checkout and exit. The goal is to enhance service quality and ensure that all service providers deliver a consistent customer experience.

Third, operational management standardization. Through classified operations of stores, time-based resource allocation, data analysis, and continuous improvement mechanisms, we continuously accumulate the experience gained from operations to build sustainable operational capabilities. In this rapidly evolving industry, standardization enables stores to run smoothly in a consistent manner, and allows all participants to provide unified, high-quality, and efficient services within a common framework.

Technology-led and standard-empowered —Schneider Electric’s practical experience in the integration of manufacturing and services

Han Wenxiu, Director of the Schneider Electric (China) Co., Ltd.



Schneider Electric has been actively exploring three key areas of intelligence, greenness, and integration. With a presence in China spanning 39 years, we have been consistently driving the green and digital transformation of the entire industry.

In 2025, Schneider Electric was ranked first in *TIME* and Statista’s list of the World’s Most Sustainable Companies. From 2023 to 2025, it consecutively topped Gartner’s Global Supply Chain Top 25 for three years in a row. Globally, nine of Schneider’s factories have been recognized as Lighthouse Factories by the World Economic Forum in collaboration with McKinsey, three of which are located in China. Earlier this year, Schneider was selected as one of the first batch of consulting agencies for China’s digital transformation maturity model (DTMM) and digital transformation service standard (DTSS), issued by the National Standards Implementation Working Group. Notably, it is the only foreign enterprise among the 14 consulting agencies.

The transformation of manufacturing and services is not simply additive; it is a form of embedded integration. As a typical equipment manufacturing enterprise, Schneider has spent years cultivating the integration of services into its overall business ecosystem and increasing the services proportion. Schneider Electric is an active participant in both global and Chinese standardization efforts. Internationally, we are deeply involved in the activities of ISO, IEC, ITU, and other regional standards bodies, holding chair and secretary positions on multiple technical committees. In China, we have over 60 experts serving as members of standardization technical committees, participating in more than 100 technical committees and subcommittees, and tracking over 180 standards annually. Ten experts from Schneider Electric (China) are registered IEC experts.

Looking ahead, we look forward to joining hands with ecosystem partners, industry chain collaborators, and government agencies to jointly promote the transformation and upgrading of China’s manufacturing sector in the three dimensions of intelligence, green development, and integrated integration.

Standardization leads high-level development of service trade

Guiding high-quality development of Hainan tourism consumption with high standards

Zhang Gang, Former Counselor of the State Council



The construction of the Hainan Free Trade Port is a major national strategy for China and a landmark initiative demonstrating China's unwavering commitment to expanding high-level opening-up and promoting an open economy globally.

First, China is accelerating its transition from element-based opening-up to institutional opening-up that encompasses standards. The Hainan Free Trade Port bears the important mission of piloting pioneering reforms. In my view, standards-based institutional opening-up includes the standards development and implementation, the openness and sharing of standards information, the building and growth of standards organizations, and the broadening, deepening, and enhancement of China's contributions to international standardization. With the operation of the Hainan Free Trade Port, we can listen to the voices of consumers from around the world, improve consumer policies centered on consumer demands, consumer environment, and consumer rights protection, and participate in standardization and standards-driven consumption initiatives in various forms.

Second, building an international tourism and consumption center needs to address the core issue of guiding consumption with standards. Hainan is making efforts to align with world-class standards, promoting the standardization, refinement, and internationalization of tourism services, and building various tourism brands.

Third, the development of the standards system for the Hainan Free Trade Port must focus on three levels of adaptation, alignment, and leadership. At the adaptation level, we need to translate Hainan's distinctive resource advantages into standardization strengths. At the alignment level, we need to promote the effective coordination of Hainan's tourism service standards with internationally accepted rules, and vigorously align with the standards of international standards organizations such as ISO, and the trade rules of regional economic agreements. At the leadership level, we should accelerate the development of a framework in which high standards guide high-quality product supply, high-quality consumer services, and high-efficiency social governance, presenting to the world a Chinese model for building a high-level opening-up hub.

Protecting consumer rights in new forms and scenarios of service consumption through “standards, intelligence and co-governance” Haikou model

He Jifeng, Vice Mayor of Haikou City



Haikou is the core leading area of the Hainan Free Trade Port and a pioneering demonstration city for China's offshore duty-free cross-border consumption and digital services consumption. Building on its positioning as an international tourism and consumption centre city within the Hainan Free Trade Port, Haikou has leveraged standardization to guide industry governance and rules to protect consumer safety, innovatively exploring a three-in-one governance model of “standards, intelligence and co-governance.”

First, we build a comprehensive consumption regulatory system with standards as the foundation. We have embedded standardization governance across all emerging sectors, including cultural tourism, people's livelihoods, and consumption. In the cultural tourism sector, we have established a coordinated tourism standardization mechanism, covering scenic spots, hotels, homestays, travel agencies, and other business types. We have systematically developed a system of national, industry, local, and enterprise standards, and conducted routine standard implementation training for nearly 1,500 participants.

Second, we leverage intelligent technologies to build a new pattern of digital and precision governance. We have comprehensively promoted the digital transformation of regulatory oversight, and fully implemented the “Internet + transparent kitchen + AI smart snapshot” supervision model, covering school canteens, elderly care institutions, and major catering establishments, enabling intelligent food identification, early warning, and rapid response to identify food safety risks routinely.

Third, we foster a collaborative multi-party protection ecosystem through shared governance. Adhering to the principles of government regulation, enterprise organization, social coordination, and public participation, we have built a full-chain consumption supply framework and strengthened cross-department joint law enforcement mechanisms, and promoted the initiative of “Consumer Confidence in Hainan.”

Haikou will further align with advanced international rules, comprehensively upgrade the “standards, intelligence and co-governance” model, continuously improve the institutional framework, and enhance the level of governance capability. We look forward to contributing Haikou's practice, Hainan's model, and China's wisdom to the high-quality development of global service consumption.

The evolution and impact of standardization in trade

Barbara Kerlen, Product Safety Committee Chair of the Australian Retail Council



Today, technological progress has transformed communication from slow mail exchanges to instant connectivity. The shift has significantly impacted the development and the implementation of standards globally.

From the 2000s on, we have seen an increasing digital area with faster, global, and integrated access to standards. We can develop new standards faster, and we can get better input, not only from industry, but also from consumer stakeholders.

We have seen a real shift from paper-based exclusivity to digital, intelligent accessibility that has made ISO and IEC standards far more influential, enabling modern global industry to operate efficiently, safely, and competitively. And this development has brought enormous benefits for consumers with it. There is still some work to be done, but we are on the right track, and we have support for modern needs, such as digital transformation and sustainability. In simple terms, standards make everyday products and services safer, more reliable, and easier to trust.

I would like to give an example where I see the benefits of best practice in collaboration across ISO and IEC for the safety of toys. ISO 8124, *Safety of toys*, is a multi-part standard that is widely used globally as a benchmark for toy safety regulation. Many countries adopt or align their national standard with this standard. This standard is often used in collaboration with IEC 62115, *Electric toys—Safety*, which applies to toys that use electricity from batteries to AC power. Also, this standard forms part of compliance with regulatory frameworks and product safety standards for children's toys, which demonstrates how important the collaboration between standards organizations is. It becomes more and more important with connected smart toys as these become increasingly prevalent.

I am looking forward to building on our abilities to communicate internationally on issues that affect consumers around the world and make the world a safer place for consumers. [CE](#)

编译/曹欣欣、靳吉丽、方洛凡
(Translated and edited by Cao Xinxin, Jin Jili and Fang Luofan based on the speeches)



Standards boost coordinated development of institutional innovation and consumption governance

标准助推制度创新与消费治理协同发展

By Jin Jili
文/靳吉丽

A roundtable focusing on the coordinated development of institutional innovation and consumption governance in pilot free trade zones (ports) was held during the thematic forum, which was presided over by Lin Gang, Deputy Director-General of the Hainan Administration for Market Regulation.

Five representatives from the market regulation and standardization sectors shared the outstanding practices on consumption governance, discussed the development of service trade standardization, and explored the pathways for the coordinated development of institutional innovation and consumption governance.

Pang Dachun, DDG-level Official of the Guangdong Administration for Market Regulation, shared the experience in the coordinated development, mutual recognition of cross-border consumption standards and integrated market governance of the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). Market regulation departments across the province have driven the publication of nearly 300 GBA standards. For a long time, the lack of unified standards and coordinated governance mechanisms in commodity access, after-sales rules, rights protection procedures and commercial service practices has hindered the integrated consumption development in the GBA to a certain extent.

Targeted efforts have been made in Guangdong in three key areas: unifying after-sales service commitments to deliver identical standards, products, quality and services; improving the cross-regional coordinated mechanism for complaint handling and turning mature experience into standards; innovating the label identification system and rolling out mutually recognized after-sales service labels for the GBA. Guangdong will guide business entities to proactively implement standards, and strive to foster a cross-border consumption ecosystem that is safe, convenient, quality and reassuring, contributing to the high-quality development of the GBA.

He Jing, DDG-level Official of the Guangxi Zhuang Autonomous Region Administration for Market Regulation, introduced Guangxi's explorations in advancing the quality upgrading of cross-border consumption through institutional innovation. Guangxi centers on the following three major aspects. First, Guangxi has established a long-term ASEAN-oriented standardization cooperation mechanism by hosting the China-ASEAN forums on standardization cooperation since 2019, and establishing committees, working groups and alliances for standardization with Laos, Cambodia and other ASEAN countries in sectors such as electric power, AI, and modern agriculture. So far, multiple cooperation agreements have been signed between China and ASEAN countries, which have brought 19 cooperation achievements.

Second, Guangxi has set up a coordination mechanism for the connectivity of China-ASEAN standards by negotiating over standardization, technical regulations, and conformity assessment procedures under the China-ASEAN Free Trade Area 3.0 Upgrade Protocol, cultivating nearly 100,000 mu of agricultural standardization demonstration zones and trained over a hundred technicians in Laos, Cambodia and other countries, and transforming two Chinese standards for rice and cassava starch into national standards of Laos.

Third, Guangxi has built a monitoring and early warning system for technical trade measures by upgrading the China-ASEAN Standard Cloud Platform to Version 3.0, which includes catalogs of 550,000 national standards of ASEAN countries, and launched the trial operation of the Information Service Platform for WTO Technical Barriers to Trade (TBT), which has collected 2,400 TBT notifications of ASEAN countries and compiled 1,300 risk assessment reports.

Tian Ming, Deputy Director of the Department of Macroeconomic and Legal Studies, Development Research Center of SAMR, analyzed the underlying logic and development trends of consumption governance in pilot free trade zones (ports) from the perspective of national top-level design. The core underlying logic of consumption governance is boosting consumption. On this basis, we should clarify the implementation pathways for consumption stimulation and sort out key points of legal alignment for institutional opening-up.

He put forward the following proposals. First, strengthen theoretical research on consumption. China's consumption policies have shifted to a new stage of expanding domestic demand and stimulating consumption. We can learn from advanced international experience to further refine consumption stimulus measures. Second, improve the regulatory system for consumption policies. At present, China's price regulation mainly relies on temporary measures, which lack long-term and stable institutional underpinnings and fail to meet the long-term development needs of the consumer market. We should establish a consumption policy regulatory system featuring precise macro-level regulation and precise micro-level implementation. Third, foster a reassuring consumption environment. Building a sound consumption environment needs to pool the expertise of industrial professionals and unite forces from all sides to underpin the high-quality development of free trade zones (ports).

Xu Lei, Vice President of the Shanghai Institute of Quality and Standardization, presented Shanghai's innovative practices in model innovation, standards integration and consumption ecosystem optimization. Remarkable results have been achieved in the development of the China (Shanghai) Pilot Free Trade Zone over the past two years. Standardization plays a vital role in consumption ecosystem optimization in the following three aspects.

First, break through bottlenecks restricting consumer goods imports via standards. The Shanghai Institute of Quality and Standardization carried out a national-level service standardization pilot project jointly with the Greenland Global Commodity Trading Hub Group, optimized the full business procedures relying on the exhibition and trading platform of the China International Import Expo (CIIE), and established a supporting standards system.

Second, align with international rules and explore trade facilitation mechanisms. The China (Shanghai) Pilot Free Trade Zone took the lead in launching the pilot work for electronic labels on imported cosmetics, and drove the digital and intelligent transformation of regulation models. It also pioneered an import consumer goods inspection facilitation mechanism, providing global debut products or regional debut products with services such as rapid customs clearance and exemption from repeated testing. It is estimated that the average customs clearance efficiency per shipment has increased over 80%.

Third, encourage consumer participation in international standards development. During this year's World Consumer Rights Day on March 15, a cooperation mechanism enabling consumers



to participate in the development of international standards was launched, which is designed to integrate consumer concerns into international standards and boost consumer confidence. This work, still in its initial stage, will further motivate consumer participation and smooth access channels for public engagement.

Ying Shanting, Deputy Director of the Standardization Research Center, Zhejiang Institute of Quality Sciences, elaborated on the outcomes of digital standards empowering cross-border trade in free trade zones. In 2020, GS1 launched the Global Migration to 2D barcodes (GM2D) project, reshaping global rules for goods information exchange. The world's first GM2D Demonstration Area is established in Zhejiang. To date, over 400 million barcodes have been assigned across the province. This model has been implemented in the Ningbo area of the China (Zhejiang) Pilot Free Trade Zone, where the number of GM2D assigned to imported and exported commodities has surpassed 260 million, greatly improving the facilitation level of global cross-border trade.

GM2D represents more than technological iteration; it signals upgraded regulatory models and governance capacity. Through international standards, GM2D builds a trusted data bridge between regulatory departments, trade entities and consumers, effectively boosting supply chain transparency and cross-border trade compliance. It also helps enterprises convey brand value and enhance market competitiveness. In the future, GM2D will play an important supporting role in the coordinated development of global industrial and supply chains.

This event has built a platform for exchanging ideas and sharing experience, charting a clear path for all regions to advance institutional innovation and optimize consumption governance through standardization, and supporting China's pilot free trade zones (ports) in fostering a higher-standard opening-up. [CS](#)

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BRICS Cooperation Empowering Global South Development: Co-building Standards, Integrating Trade, and Sharing Development

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HOSTED BY | China Council for the Promotion of International Trade (CCPIT)

承办单位 | 中国国际贸易促进委员会商业行业委员会
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BRICS Economic and Trade Forum brings joint efforts

金砖国家经贸活动论坛在京举行

By Fang Luofan
文/方洛凡

The BRICS Economic and Trade Forum was held in Beijing on April 24 under the theme “BRICS cooperation empowering Global South development: co-building standards, integrating trade, and shared development.”

The forum was hosted by the China Council for the Promotion of International Trade (CCPIT) and organized by its Commercial Sub-council and the Trade and Investment Working Group of the BRICS Business Council (Chinese Chapter). It was supported by the China General Technology (Group) Holding Co., Ltd. (GENERTEC) and the BRICS Business Council (Chinese Chapter).

The forum was attended by more than 200 participants, including representatives from Chinese and foreign standardization organizations and competent authorities, business associations, enterprises, research institutes, and diplomatic envoys from relevant countries.

The year 2026 is pivotal for the ever-deepening BRICS cooperation mechanism and the high-quality development of greater BRICS cooperation. According to the Global Trade Update released by the UN Trade and Development (UNCTAD), global trade in 2025 reached a record high of USD 35 trillion, representing year-on-year growth of about 7.5%. The BRICS economies together account for roughly 30% of global GDP and one-fifth of global trade, contributing more than 50% to global economic growth. The BRICS cooperation mechanism serves as an important platform for solidarity and cooperation among emerging market economies and developing countries.

The world needs standards for coordinated development, and standards facilitate global connectivity. As representatives of emerging markets and developing countries, BRICS countries play a significant role in deepening practical cooperation and promoting the liberalization and facilitation of trade and investment, which is of great importance for maintaining the stability and smooth functioning of global industrial and supply chains.

The forum was addressed by Li Qingshuang, Vice Chairperson of China Council for the Promotion of International Trade (CCPIT), Wang Gang, Deputy Director-General of the Department of International Economic Affairs of the Ministry of Foreign Affairs of the People's Republic of China (MFA), Guo Chenguang, Deputy Director-General of the Department of Standards Innovative Management of State Administration for Market Regulation (SAMR), Kim Kichan, Chair of the International Council for Small Business (ICSB), Zhang Weiwu, Vice President of Industrial and Commercial Bank of China Ltd. (ICBC), and Yu Xubo, Chairman of China General Technology (Group) Holding Co., Ltd. (GENERTEC). Diplomatic representatives from the Indonesian and Egyptian embassies in China also attended and delivered keynote speeches.

Participants engaged in exchanges and discussions on the current status and future trends of BRICS economic and trade exchanges and standards cooperation concerning the digital economy, green transition, and sustainable development. They unanimously affirmed the forum's positive role in building consensus among the BRICS business community, expanding economic and trade ties, and deepening standards alignment, and offered recommendations on how standards cooperation can promote trade facilitation.

The Handbook on BRICS Trade Development and Standards Cooperation was released at the forum. This document systematically brings together key information on trade and standards across BRICS countries, providing a comprehensive tool for government agencies, the business community, industry associations, research institutes, and enterprises seeking to explore BRICS markets, which will lay a solid foundation for promoting the alignment of trade policies and standards among countries and expanding industrial cooperation.

As China's largest national trade and investment promotion agency, CCPIT is committed to strengthening the bonds of interest between Chinese and foreign enterprises and promoting international economic and trade cooperation. It will provide more communication platforms for the business community to deepen economic and trade exchanges and standards cooperation, and make sustained efforts to promote BRICS cooperation and global economic development. 

Indonesia seeks stronger cooperation, greater mutual trust, and shared prosperity

For Indonesia, becoming a member of BRICS carries profound significance. At last year's BRICS Summit in Brazil, leaders unanimously agreed to strengthen cooperation among Global South countries and promote a more inclusive and sustainable system of global governance. For Indonesia, this also means ensuring that the voices of developing countries are fully heard in shaping the industries and global value chains of the future.

Indonesia's economy grew by 5.11% last year, while China remained one of Indonesia's most important strategic partners. In 2025, bilateral trade between the two countries reached nearly USD 167 billion, with Chinese investment in Indonesia totaling USD 7.5 billion.

Despite these encouraging achievements, we remain fully aware of the challenges ahead: disruptions to global supply chains, growing geopolitical uncertainties, and the urgent need to accelerate green and digital transitions.

We believe cooperation can be deepened in the following areas: **First, strengthen standards harmonization to facilitate trade.** Trade is not merely about volume—it is also about market access. The alignment of standards, certification systems, and regulatory frameworks is essential to helping products from developing countries enter global markets. In this regard, we support initiatives that promote mutual recognition of standards and greater transparency in trade procedures.

Second, deepen industrial cooperation and value chain integration. Indonesia is actively pursuing industrial transformation, particularly downstream development in sectors such as minerals, electric vehicles, and green energy. We welcome partnerships that evolve beyond investment to encompass technology transfer, capacity building, and joint innovation.

Third, empower small and medium-sized enterprises (SMEs) through digital economy cooperation. SMEs form the backbone of our economy, yet they often face significant barriers to accessing global markets. Through digital platforms, cross-border e-commerce, and financial innovation, we can build a more inclusive ecosystem for SMEs. Indonesia stands ready to work with its BRICS partners to ensure that no one is left behind in the process of globalization.

Indonesia, China, and other BRICS partners have already demonstrated that cooperation delivers tangible results—from infrastructure development and trade expansion to people-to-people exchanges.



dr. Irene, M. Han

Deputy Ambassador of the
Embassy of the Republic of
Indonesia



Khaled Melad Rezek

Minister Plenipotentiary and
Head of the Economic and
Commercial Department,
Embassy of the Arab Republic
of Egypt

Egypt is confident about the future of its partnership with BRICS

Egypt's participation in BRICS represents not merely a diplomatic milestone but also an integral part of our broader strategic vision. We regard BRICS as a vital platform for financial cooperation that reflects our wider development perspective. Our objective is to achieve tangible outcomes through expanded manufacturing, trade, infrastructure development, technology transfer, and greater opportunities for our people, while contributing Egypt's unique strategic value to this partnership.

Strategically located at the crossroads of Africa, the Middle East, the Mediterranean, and major global maritime routes, Egypt is home to the Suez Canal, one of the world's most important trade corridors. Egypt is also one of the region's largest consumer markets. Our investment environment combines a vast domestic market with a young, dynamic, and increasingly skilled workforce. This unique combination of market size, talent, and strategic location is complemented by investment incentives, including tax benefits for eligible projects, making Egypt an ideal gateway to both African and Middle Eastern markets. At the same time, Egypt serves as a regional manufacturing hub. Looking ahead, we believe that Egypt's future relationship with BRICS should be one of mutual reinforcement and shared development.

First, we seek to expand industrial cooperation. We are working with fellow emerging economies in areas such as fertilizers, logistics, assembly manufacturing, renewable energy, food processing, pharmaceuticals, engineering industries, textiles, automotive components, and green energy.

Second, we aim to strengthen logistics and supply chain resilience. Significant opportunities exist for deeper cooperation in warehousing, cold-chain logistics, industrial parks, multimodal transportation, and trade facilitation.

Third, we seek enhanced financial cooperation and development financing, including expanded financing options for infrastructure, energy, manufacturing, and technology.

Fourth, food security, energy security, and climate resilience remain priority areas.

By joining BRICS, Egypt reaffirms its commitment to promoting regional and economic development and firmly believes that our cooperation will generate greater prosperity for all.

Connecting MSMEs to global opportunities

Today, trade and investment decisions are being made in an environment of unprecedented uncertainty. South-South trade is expanding rapidly, creating new opportunities for cooperation among BRICS countries. While BRICS economies account for a considerable share of global GDP, intra-BRICS trade still represents only a relatively small proportion of global trade.

Against a backdrop of constantly evolving tariff policies, increasingly complex regulatory requirements, and changing sustainability standards, information asymmetry can result in missed opportunities, higher costs, and greater risks. Artificial intelligence-powered tools can make trade decisions more transparent and reliable by drawing upon internationally verified data.

To make informed trade decisions, businesses need answers to several key questions: Where is market demand? What are the costs of entering a particular market? What requirements must be met? This is where the Global Trade Helpdesk comes into play.

Led by the International Trade Centre (ITC) in collaboration with multiple partner organizations, the Global Trade Helpdesk simplifies access to market intelligence for businesses of all sizes. It consolidates information on market opportunities, tariffs, customs procedures, and regulations into a single, user-friendly platform.

With the support of industry partners such as the Commercial Sub-Council of the China Council for the Promotion of International Trade (CCPIT), the platform offers multilingual services, including Chinese. In practice, users simply enter a product and target market, and the platform identifies potential opportunities within minutes and helps optimize export strategies.

The Global Trade Helpdesk has also evolved into a collaborative ecosystem comprising dozens of partners worldwide. Together, we have organized numerous online seminars and training programs for businesses and universities across China. To date, more than 30 trade professionals have been certified as Global Trade Helpdesk trainers.



Mathieu Lorian

Senior Market Analyst at the
International Trade Centre (ITC)



Eunsook Moon

Chair of ISO's Committee
on Consumer Policy (ISO/
COPOLCO)

Making standards truly global: Putting consumer reality at the center of standardization

Each year, approximately 1.2 million consumers in the Global South lose their lives in road traffic accidents. More than 90% of these fatalities occur in low- and middle-income countries, where the most vulnerable populations bear the greatest burden. This is fundamentally a matter of consumer safety.

Similar challenges arise in everyday life. Every year, around 2.9 million people die from unsafe cooking practices or other forms of household pollution. More than two billion people are exposed to polluted environments, with women and children disproportionately affected. For many of them, even daily life carries significant risks.

These are not isolated problems but systemic consumer risks. They stem from gaps in safety, information, and consumer protection. The more vulnerable a population is, the greater its exposure to risk. So what can we do? This is where standards play a critical role. Standards can ensure safety, foster innovation, and promote fairness.

Innovation cannot flourish without standards. We all know that the Internet functions globally because of international standards. Without standards, practical implementation would become fragmented and inequitable, creating serious problems.

This is precisely the mission of ISO's Committee on Consumer Policy (ISO/COPOLCO): bringing consumers' voices into the standardization process. We begin by identifying and analyzing the risks and vulnerabilities consumers face, then translating their needs into priorities for standards development. In this way, consumers' voices are not overlooked, and their needs are reflected in international standards.

Ultimately, standards must reflect the realities and needs of the people they affect. If standards fail to address the circumstances of those most profoundly impacted, they cannot truly be considered global. This includes consumers throughout the Global South. Consumers matter, and standards matter just as much.

Deepen practical cooperation, seize shared opportunities

China General Technology (Group) Holding Co., Ltd. (GENERTEC), has well implemented the cooperation mechanism and delivered tangible outcomes as the BRICS Business Council (Chinese Chapter) and the Trade and Investment Working Group of the BRICS Business Council (Chinese Chapter). It has also built platforms to boost coordination as the primary operator of the Industrial Innovation Alliance under the BRICS Innovation Base, and taken the lead in operating the Alliance together with the International Cooperation Center of the Ministry of Industry and Information Technology.

Against the complex international landscape, Genertec International Holding Co., Ltd. puts forward the following suggestions: First, break down barriers through standards alignment, advance the mutual recognition of international standards and technical specifications, and effectively cut cross-border cooperation costs. Second, stabilize global supply chains via the coordination of industrial chains, deepen the division of labor and collaboration in competitive sectors, and foster a mutually beneficial industrial ecosystem. Third, leverage institutional mechanisms to boost trade facilitation and fully implement the BRICS Action Plan for the Initiative on Trade Development and Standards Cooperation (2025–2026).

Going forward, Genertec International will actively uphold, advance and support the BRICS cooperation. First, accomplish all work related to the BRICS cooperation with high quality, and continuously advance the deep integration of standardization and trade facilitation. Second, boost the implementation and sustained development of cooperation projects in cutting-edge sectors including digital economy and green development through unimpeded trade and technological empowerment. Third, draw on Genertec's global business network and the construction of the Xiamen BRICS Innovation Base headquarters to deliver full-process service support for enterprises from BRICS and the Global South, helping make their voices heard in the global economic governance.

We will work with all partners to improve the quality and efficiency of the BRICS economic and trade cooperation, jointly build a more resilient comprehensive BRICS cooperation framework, and contribute to the shared development of the Global South.



Kang Hubiao

Board Chairman of the
Genertec International Holding
Co., Ltd.



Gao Zhikai

Vice President of the Center for China and Globalization (CCG)

Great power rivalry and global governance: China's role and pathway

The BRICS cooperation mechanism has growing appeal to the Global South. Given the rising importance of the BRICS cooperation mechanism, I would like to share several observations on its future development.

First, a three-tier concentric development framework consisting of China, the BRICS and the Global South has taken shape across the globe. By working with other BRICS countries, the Global South and related countries worldwide, China stands as a core force safeguarding world peace, free trade and global development, taking a leading position in industrial advancement, technological transformation, artificial intelligence and many other sectors.

Second, the unprecedented achievements of China are of profound significance for the progress of humanity. China now serves as an important cornerstone for global peace and stability, and it will continue to enable the BRICS cooperation mechanism to make greater contributions to the Global South and the world.

Third, AI is set to reshape the global development landscape and our modes of production and life. I hope that the BRICS cooperation mechanism prioritizes AI to advance global coordination and bridge the technological gap. Such cooperation should also be extended to the Global South, helping strengthen technical ties, share innovation dividends and achieve coordinated development.

Fourth, BRICS should further deepen practical cooperation in energy, science and technology, finance and other fields. It is necessary to refine cooperation frameworks, innovate cooperation models and build cooperation scenarios to make the mechanism more dynamic, standardized and efficient.

At last, the BRICS countries need to strengthen collaboration in institutional building, integrated development, standardization, scientific and technological innovation, high-end manufacturing upgrading and interconnectivity. Major breakthroughs should be made in regional coordinated development and international collaboration. I am convinced that the BRICS cooperation mechanism will bring new hope, new vitality and new value to the Global South.

BRICS empowering global supply chains —Vale’s experience and contribution

Vale strives to improve life and transform the future together as one of the world’s largest mining companies. It is a global leader in iron ore, and holds a significant position in copper, nickel and other critical minerals that are essential for the global energy transition, digitalization and the rapid development of technologies such as AI. Our ambition is to be a value creator in the mining industry through ethical and sustainable practices.

Sustainability is not only a responsible ability but also a strategy priority for Vale. On energy, we have already achieved 100% renewable electricity in our operations in 2023, two years ahead of schedule. We are now on track to reach 100% renewable electricity consumption globally by 2030. On climate, Vale has adopted ambitious targets. We aim to reduce our Scope 1 and Scope 2 emissions by 33% by 2030 and achieve net-zero emissions by 2050. Vale will also restore and protect 500,000 hectares of forest beyond our operational boundary by 2030, contributing to biodiversity protection and climate resilience. Sustainability is the foundation of our long-term competitiveness and an essential element of our cooperation with partners around the world.

As a global company, we see enormous value in a stable, transparent and inclusive BRICS cooperation mechanism. Vale has actively participated in many cooperation platforms. We are a founding member of the Brazil-China Business Council. During Brazil’s BRICS presidency last year, Vale served as the leader of the energy, green economy and climate working group of the BRICS Business Council. In 2025, Vale hosted forums on collaborative innovation and green development. In 2021, Vale launched a program to reduce emissions in maritime transportation. Vale has also strengthened collaboration with Chinese research institutions, and supported educational initiatives in China.

Vale firmly believes that together with all our partners in the BRICS countries and all around the world, we will build the future characterized by sharing growth, mutual trust and sustainable development.



Chen Guangda

General Manager of Corporate
Affairs of Vale China



Gudkov Nikolay

Chief Representative of
the Chamber of Commerce
and Industry of the Russian
Federation

MICE industry as a tool for business growth in BRICS and Global South

With the shift of global landscape toward a new order, the industry of meetings, incentives, conventions and exhibitions (MICE) serves as a powerful catalyst that connects enterprises, stimulates innovation, and accelerates development. The promotion of MICE events will help boost intra-regional trade and unlock the economic potential of the Global South.

While emerging as a new engine of global economic growth, the Global South is confronted with formidable challenges, and many countries fail to identify market opportunities. The expansion of BRICS has rendered this issue even more pressing. A great number of business leaders still lack a full understanding of opportunities in Africa, Latin America and Southeast Asia. We must strengthen information exchange and use tools to bridge this gap.

The initiative for the Global South convention & exhibition hub advocates business events across the Global South. First proposed in Brazil last year, the initiative was highly appraised. This platform has been officially launched and fully put into operation. As an effective instrument for event promotion and a vital source of market insights, it enables users to access credible data and make sound market decisions.

Such an information platform dedicated to the Global South is of great significance. We are confident that it will effectively complement the work of national chambers of commerce and the BRICS Business Council, and cater to enterprises in pursuit of business opportunities as well as event organizers to attract professional attendees.

The initiative is being rolled out at a faster pace. Equipped with advanced business analytics tools and filtering functions, it will allow enterprises to retrieve information with greater ease, improving decision-making quality and overall operational efficiency.

We believe this initiative will deepen economic cooperation and highlight emerging development prospects, which aligns with the commercial interests of enterprises and the strategic goal of advancing economic integration among nations. We look forward to more similar cross-industry projects to fully unlock economic potential.

Promoting modernization in the BRICS countries and the Global South, especially in India and China: New pathways and visions

India is the world's fourth largest economy and one of the leading countries representing the Global South. India has cooperated with the Global South for many years. BRICS brings together nations of the Global South and strives to make their voices heard on the global stage.

According to the data from the International Monetary Fund (IMF), BRICS contributes more to global economic growth than the Group of Seven (G7). It is predicted that BRICS will account for over 50% of global GDP by 2030.

Within BRICS, Asia serves as the primary growth engine. Both India and China show robust economic growth. A large number of startups have become unicorn companies within a short time, which will become core growth drivers in the years ahead. India and China also play an essential role in global affairs. Disruptive innovations are taking place across AI, big data and other sectors, and continuous development of software and new products generates staggering market value.

Technological innovation, industrial transformation and rapid advancement of the digital economy are undoubtedly key drivers of economic development. India has become an advanced digital nation with digital transformation outpacing that of many advanced economies, driven by widespread high-speed smartphone connectivity, falling costs and improved accessibility.

The world is shifting toward a more sustainable and greener sharing economy, especially in services. We need to formulate regulatory frameworks to make emerging technologies adopted across regions at a faster pace, so that all stakeholders can reap the benefits brought by technological progress.

It is my earnest wish that India, China and other nations across the globe stand as advocates of globalization. We should work together to forge a new international order grounded in fairness and transparency, strengthen solidarity and collaboration, and unleash the momentum for global growth. 



Atul Dalakoti

Executive Director of
Federation of Indian Chambers
of Commerce and Industry
(FICCI) China

编译/曹欣欣、靳吉丽

(Translated and edited by Cao Xinxin and Jin Jili based on the speeches)



Standards cooperation promotes trade facilitation

专题研讨：标准合作促进贸易便利化

By Fang Luofan

文/方洛凡

With profound changes in global trade, industrial chains, and supply chains, trade facilitation today extends far beyond traditional dimensions such as customs clearance procedures, logistics efficiency, and cost reduction. It now hinges on deeper underlying enablers—whether rules are harmonized, standards are aligned, qualifications and outcomes are mutually recognized, data can flow with trust, and platforms and services are capable of supporting business implementation. Particularly against the rapid development of the digital economy, the green transition, and services trade, standards cooperation is exerting an increasingly direct impact on the quality and effectiveness of trade facilitation.

Zhu Qin, Director of the Department of Policy Coordination of the BRICS PartNIR Innovation Center, Xu Shan, Director of the Department of International Cooperation of the Artificial Intelligence Institute of China Academy of Information and Communications Technology (CAICT), Liu Zerong, Director of the Department of International Cooperation of Zhongguancun Industry & Information Research Institute of Two-dimensional Code Technology, Bi Sheng, General Manager of China Nuclear Engineering Consulting Co., Ltd., Deng Zhidong, Director of the Marketing Digital Operation Center at the Customer Service Center of State Grid Corporation of China, joined the discussion, which was presided over by Yao Xin, Secretary-General of China Council for the Promotion of International Trade Commercial Sub-council (CCPIT-CSC).

Yao Xin: What are the primary obstacles impeding the facilitation of trade in goods and services? For enterprises, what are the barriers they experience most directly?

Bi Sheng: There is a problem of mismatched mutual recognition systems. In the engineering sector, numerous issues remain unresolved regarding mutual recognition frameworks. First, professional engineer grade assessment certificates issued domestically face recognition challenges abroad. Second, China's engineer evaluation system is underpinned by national standards and relevant regulatory procedures, but it lacks mutual recognition with international systems. Third, there is insufficient alignment between domestic and foreign assessment bodies in terms of trust, standards, and mutual recognition mechanisms, particularly in how assessment results are accepted across borders.

Deng Zhidong: Drawing on our experience in the energy and power sector, I see three main barriers to the overseas implementation of projects:

First, barriers arising from hidden differences in market environments. Second, barriers in translating standards compliance into market access. Third, barriers in compliance management and security safeguards. Therefore, to advance trade facilitation in the energy and power sector, we must take into account local market realities, strengthen standards coordination and mutual recognition, and reinforce compliance and security safeguards.

Yao Xin: Against the backdrop of rapidly growing digital trade, is digitalization merely a tool for facilitating trade, or is it fundamentally reshaping the underlying logic of standards cooperation?

Xu Shan: Digitalization is fundamentally reshaping every industry. On the one hand, the reconstruction of standards formats. With the rise of artificial intelligence, we now see open-source communities generating de facto standards that are machine-readable and executable codes. Standards are no longer just paper agreements; they are more often localized based on a shared open-source framework, enabling natural convergence at the code level.

On the other hand, rules for data circulation. The training and inference of large models cannot be performed entirely within a country's borders, so token exports can only achieve model-level exports at best.

Within new markets and the BRICS framework, we can conduct AI-related pilot projects or joint research, so that compliant data flows can proceed more smoothly.

Yao Xin: How does an identifier-based unified digital identity change the pathway to trade facilitation?

Liu Zerong: There are three major changes. First, digital technology is shifting standards from interface competition to language unification. To enable smooth, secure, and efficient data transmission up and down the supply chain, a unified international standard must be established. We are taking the lead in developing the international standard IEC 63538, which is a foundational standard for the future digital supply chain.

Second, AI and identification codes are redefining data readability and executability. Identification codes are essentially the digital identity credentials and access portals in the digital world. The MA identifier, as an internationally recognized unified identification code, can assign globally unique identifiers to products, entities, locations, credentials, and data. Customs can see the required data, logistics providers can view transport node information, and end consumers can access the full lifecycle traceability of a product.

Third, the digital evolution of data circulation rules. Countries generally regard data as a strategic national resource and are deeply concerned about losing control once data leaves their borders. Through identification gateways and tiered resolution mechanisms, we can avoid transmitting raw data and instead return verified credentials, summaries, or validation results.

Yao Xin: What are your expectations for BRICS standards cooperation in promoting trade facilitation?

Zhu Qin: First, I hope that we can leverage national-level cooperation platforms to strengthen enterprise services, accelerate the mutual recognition of standards in key industries, and break down barriers caused by standards discrepancies. Second, we need to build a robust information sharing platform that will help remove information silos, enabling enterprises to easily access updates on national standards and certification requirements, improve customs clearance efficiency, and reduce unnecessary trade obstacles. Third, we should enhance communication to develop replicable and scalable cooperation models. Through standards synergy, we can consolidate the collective strength of BRICS, making standards cooperation a vital pillar for deepening cross-border cooperation and achieving mutual benefits among BRICS members. 





Smart technical regulations

When regulation becomes a driver of
innovation and competitiveness

智慧技术法规有助于推动创新和提升竞争力

By Dr. Zaki M. Al-Rubaei 文/扎基·阿尔-鲁贝伊

Head of International Cooperation,
GCC Standardization Organization (GSO)

As global markets become more digital, interconnected, and risk-sensitive, technical regulations are being reshaped from static compliance tools into dynamic systems that learn, adapt, and enable innovation. This article explores how smart technical regulations are redefining the future of standardization and quality infrastructure worldwide.



Introduction

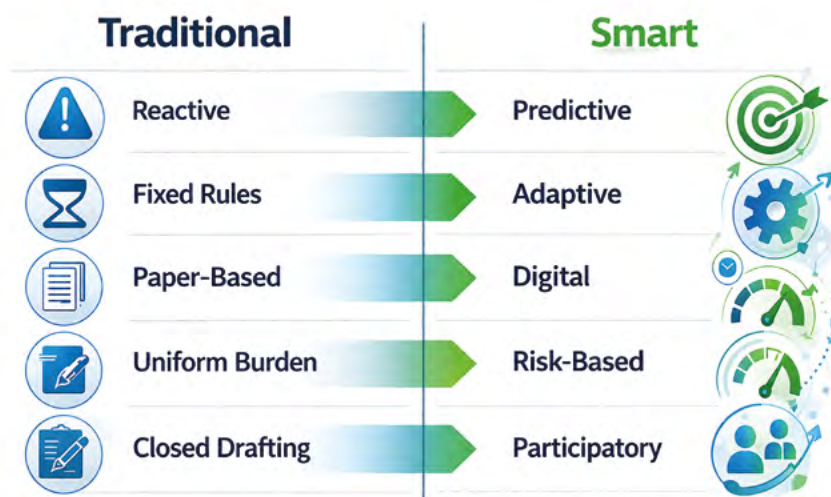
Technical regulations are no longer tested only by how strict they are, but by how intelligently they respond to change. In a world shaped by disruptive technologies, fast-moving innovation, and deeply interconnected supply chains, old regulatory approaches are being challenged like never before. What once seemed sufficient for control and compliance may no longer be enough for a global economy that is constantly shifting. This raises a pressing question for policymakers: can traditional frameworks in standardization and quality still keep up with the speed and complexity of today's world?

The question becomes even more urgent in today's digital economy, where industries increasingly overlap, risks change rapidly, and new applications in artificial intelligence, the Internet of Things, blockchain, and biotechnology are advancing faster than legal frameworks can follow. In this fast-moving environment, the idea of smart technical regulations is emerging as one of the most important quiet shifts transforming standardization and quality systems around the world. It is not just about updating laws. It signals a deeper change in how regulation is understood—from a system that reacts to yesterday's problems to one that anticipates tomorrow's challenges, and from a rigid framework built on fixed rules to a more flexible model that learns from data, responds to reality, and adjusts its level of intervention based on risk and impact.

From traditional regulations to smart regulations

Historically, technical regulations were designed to protect consumers, ensure product quality, prevent risks, and guide markets. However, the expansion of international trade, the growing level of technical complexity, and the increasing overlap between products and services have required regulation to play a broader role than mere oversight. Today, technical regulations in standardization and quality are no longer simply compliance instruments; they have become part of the infrastructure of innovation and a key factor influencing trade flows, investment attractiveness, and market confidence.

The fundamental distinction between the two models is that traditional regulations were generally built around the question: what happened, and how can we prevent it from happening again? Smart regulations begin with: what might happen, and how do we prepare for it? For this reason, they are built on data, continuous analysis, periodic review, impact assessment, and openness to stakeholders, which makes them more capable of adapting to changing risk patterns and rapidly evolving environments. They do not begin with rigid legal texts, but with operational reality, market behavior, and actual indicators of performance and compliance.



In this context, practical transformations such as digital conformity files, remote inspection or testing through the Internet of Things, real-time cloud-based oversight, and the use of blockchain technology to trace supply chains have become increasingly familiar. These are not merely supporting technical tools; they have become essential components of smart technical regulations because they reduce costs, improve regulatory efficiency, increase data reliability, and accelerate market access for products.

The world is re-engineering regulation

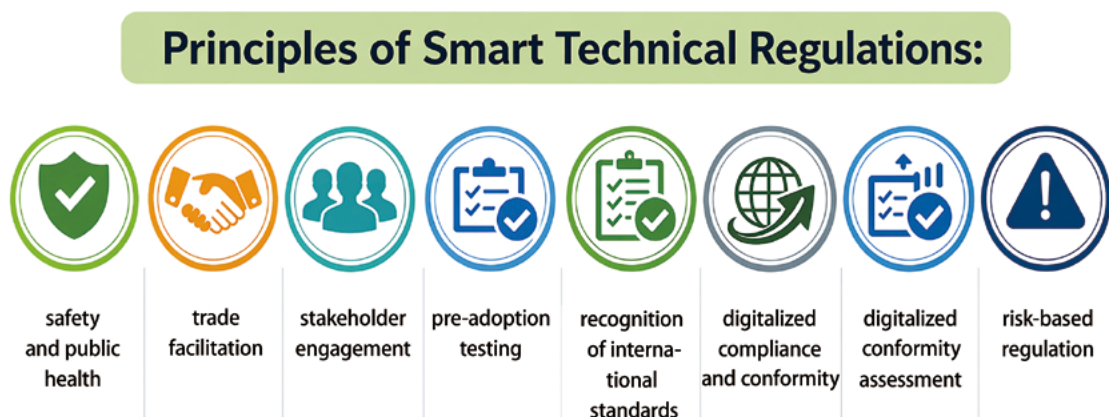
This trend is no longer confined to intellectual or academic debate; it has materialized in advanced international practice. In the European Union, the methodology of legislation has been restructured through forward-looking impact assessments, broad public consultations, and periodic legislative reviews, reflecting a shift from intention-based regulation to outcome-based regulation. The EU AI Act stands out as a global example of this approach, as it relies on risk classification and introduces different levels of requirements depending on the degree of risk, rather than imposing one uniform set of rules on all applications. This approach demonstrates that regulatory intelligence does not mean weakening protection, but directing it with greater precision.

In the United States, the Food and Drug Administration and the Federal Aviation Administration rely on big data analytics and artificial intelligence models to determine inspection priorities and identify higher-risk facilities, thereby reducing random inspections and improving regulatory efficiency and consumer safety. In addition, the concept of behavior-based technical regulations has emerged in certain sectors, where rules are designed based on consumer behavior in order to limit misleading practices and excessive complexity. The value of this model lies in making regulation more closely aligned with the actual behavior of market actors and more effective in terms of outcomes.

China, for its part, has distinguished itself in this field through regulatory sandboxes, which allow new technologies to be tested within defined regulatory environments before moving to full legislative adoption. As demonstrated by Shanghai's experience with autonomous vehicles, this approach has shown that regulation can serve as a partner to innovation rather than an obstacle to it, and that testing new solutions within structured environments makes it possible to build regulations that are more precise, more balanced, and more closely aligned with practical realities.

In Australia, performance-based regulations have been adopted in the heavy transport sector. Instead of imposing fixed dimensions and detailed technical requirements on trucks, companies are required to demonstrate through simulation and analysis that the vehicle meets the required level of safe performance. Here, regulatory intelligence is expressed in freeing innovation from rigid formal constraints while maintaining safety as the binding outcome.

What unites these experiences is that the transformation is no longer merely about improving tools, but about rethinking the underlying methodology itself. The question is no longer simply how to draft a law, but rather: for what reality are we drafting it? Are we regulating for a rapidly fading present, or are we building rules capable of engaging in the future? Should technical regulations be rigid from the outset, or should they be open to experimentation, review, and evolution? The world is now moving toward a new model of governance based not only on control, but on understanding, anticipation, and continuous learning.



What kind of future do smart regulations produce?

The future of technical regulations and legislation in standardization and quality infrastructure is now tied to their capacity to learn. Regulations that are issued once and revised only after many years are no longer sufficient in an environment that changes with unprecedented speed. Countries that lack continuous mechanisms for reviewing their regulations will find themselves out of step with the markets. Smart regulations, therefore, are neither an intellectual luxury nor a passing trend. They are a structural response to profound global transformations and a necessary step toward building legislative systems that lead the future rather than chase it.

The world is moving toward a new model for the governance of regulation, characterized by greater flexibility, closer integration with technology, and a clearer connection to actual performance outcomes. In this model, data becomes infrastructure for decision-making, enabling the anticipation of risks, the more accurate measurement of compliance, and the issuance of regulatory judgments grounded in evidence rather than impressions. These regulations also rely on international standards such as ISO, IEC, ITU, and CODEX as recognized pathways to compliance, while focusing on verifying required results rather than imposing a single prescribed method of implementation.

Digital transformation is the cornerstone of this model. Compliance systems are shifting from slow paper-based procedures to integrated digital platforms that enable intelligent inspection, near-instant licensing, and continuous remote quality monitoring. Modern systems are also increasingly adopting a hybrid model that combines pre-market conformity assessment with smart post-market surveillance, using digital databases, reporting platforms, and import and trade data analysis. This means that the level of oversight is no longer fixed; instead, it is adjusted dynamically according to the actual performance of the products in the market, which is the essence of risk-based regulation and continuous learning.

Perhaps the clearest illustration of this idea is the difference between traditional traffic lights operating on fixed timers and smart traffic systems that use sensors to adjust signal timing according to actual traffic movement. The core principle is the same: more responsive regulation, more precise decisions, and better outcomes for all.

Regulations are not drafted behind closed doors

The transformation does not stop at technology; it also extends to the way regulation itself is made. Modern experience has shown that regulations designed in isolation from society are less effective, less sustainable, and more vulnerable to implementation difficulties. This is why broad public participation has become increasingly important, including the involvement of the private sector, researchers, professional associations, and consumers through digital consultation platforms, participatory models for drafting texts, evidence-based rulemaking, impact assessments, and pre-adoption testing of new regulations, culminating in what is often referred to as agile regulation. Participation not only improves the quality of regulation; it also increases compliance, reduces costs, and strengthens trust in institutions.



The essence of any smart regulation is not that it reduces requirements, but that it simplifies the path to compliance and makes implementation more efficient and less costly. For this reason, participation in building legislative rules is no longer merely an enhancement option; it has become a necessity for ensuring practical applicability, strengthening acceptance, and opening the way for innovation.

Singapore offers an advanced example through open government and policy co-design. Draft technical regulations are introduced early for public discussion, services and systems are developed in cooperation with end users, and policies are tested before formal adoption. Singapore has also developed an advanced digital model in the construction sector that allows building plans to be submitted, reviewed, and checked automatically against technical requirements, while engaging engineers and the private sector in developing the regulations themselves and using digital simulation to verify safety before implementation. Here, intelligence lies in the fact that compliance is digital, and primary review is automated, reducing licensing periods from months to days.

Similarly, in the European Union, draft legislation is published on open participatory digital platforms to receive comments from citizens, the private sector, universities, and professional organizations before adoption. In the United Kingdom, regulatory bodies are required to conduct consultations, publish impact assessment documents, and revise texts considering societal responses. These examples confirm that participatory regulation is not merely a formal appearance; it is one of the essential conditions for the quality and sustainability of regulation, because it makes it more effective, less vulnerable to misunderstanding or resistance, and more capable of practical implementation.

Smart implementation is no less important than drafting



International experience confirms that the success of technical regulations does not depend only on the quality of drafting, but also on the efficiency of implementation, the clarity of compliance mechanisms, and the ability of regulatory authorities to assess actual market impact. Smart regulation is regulation that is implemented with risk-based flexibility, subjected to periodic post-implementation review, and adjusted in light of practical results, ensuring that safety and quality objectives are achieved without creating unjustified regulatory burdens. This requires reliable data infrastructure, interoperable systems, effective data protection, and the development of human capabilities within regulatory bodies. Success here depends not on technology alone, but on data governance and evidence-based decision-making.

The GSO context: smart technical regulations in standardization and quality infrastructure

At the Gulf level, the standardization and quality system has achieved notable progress in recent years through the development of a common legislative and technical framework that is among the most advanced in the region. Harmonized Gulf standards, unified technical regulations, conformity assessment systems, the Gulf Conformity Mark (G-Mark), supporting digital infrastructure, and coordinated market surveillance programs with member states have all contributed to smoother movement of goods, reduced national duplication, stronger consumer protection, lower compliance costs, and more efficient market access across Gulf markets.



This progress does not represent the end of the journey. Rather, it lays the foundation for a new generation of smart technical regulations based on data, continuous analysis, risk-based regulation, and Gulf integration in facilitating trade and attracting investment. In this direction, the GSO Strategic Plan 2026–2030 reflects an advanced awareness of these transformations through its focus on legislative impact assessment, the development of risk analysis, digital platforms, linking regulations to data, capacity building, and strengthening stakeholder participation in drafting and development.

Conclusion: regulation as a tool of foresight, not control

Smart technical regulations in standardization are no longer simply a modern regulatory option; they have become a reflection of institutional maturity in understanding the link between regulation and development. When regulation can learn, adapt, and respond accurately to risk, it not only protects markets, but also opens them, while creating a stronger environment for innovation, investment, and competitiveness.

The world is moving not toward more regulation, but toward regulation that is more intelligent, flexible, and informed. In this shift, regulation becomes an instrument of knowledge and foresight rather than a rigid tool of control. Countries that build legislative systems based on data, participation, and continuous evaluation will be better positioned to lead future economies, strengthen competitiveness, and secure a stronger place in global value chains.

Accordingly, the move toward smart technical regulations in standardization and quality is not a narrow technical issue or a temporary digital response. It is a deeper transformation in the philosophy of regulation itself: from reaction to anticipation, from constraint to enabling growth, and from static text to a living system that learns from reality and helps shape the future. 

How AI and renewables are transforming the power grid



Renewable energy is gaining momentum and is set to become the world's largest source of electricity in 2025, overtaking coal for the first time. This fundamental shift—combined with rapid advances in artificial intelligence (AI)—is accelerating the clean energy transition. However, it is also creating new challenges for the centuries-old electricity grid. AI and big data can help address these challenges, but significant hurdles remain.

AI and big data provide powerful ways to manage this growing complexity. Sensors and monitoring systems can collect vast amounts of real-time data, which AI models can analyze to detect patterns, anticipate disruptions and support automated decision-making.

Despite their potential, AI and big data have some drawbacks. Many AI models are not yet fully mature or trusted for critical infrastructure. Data quality and interoperability remain problematic and deploying these technologies requires significant investment. In addition, there is still a lack of common standards and governance frameworks.

To support the evolution of the grid and the deployment of smart solutions, IEC has published a new Societal and Technical Trend report. The report provides context, guidance and a structured framework to help ensure safe and reliable implementation.

The Application of AI and Big Data in Power Systems offers a comprehensive overview of the electricity system and explores how AI can enhance security, reliability and efficiency. It includes a wide range of application scenarios—from construction and load forecasting to virtual power plant control—and reviews existing and emerging standards, future standardization priorities and current gaps.

The free report can be downloaded at: <https://www.iec.ch/basecamp/application-ai-and-big-data-power-systems>

(Source: IEC)

URSI GASS 2026

August 15-22, Kraków, Poland



URSI General Assembly and Scientific Symposium (URSI GASS) is an international conference of the highest rank, held every three years since 1919 and organized by the International Union of Radio Science (URSI). It serves as a platform to review current research trends, present new findings, and develop plans for future research and special projects in all areas of radio science, with a special emphasis on fostering international cooperation.

The URSI GASS 2026 is expected to attract more than 1,500 radio scientists and engineers from across the globe. The conference will feature presentations and discussions on the latest research by leading scientists, engineers, and emerging researchers, including students. The established contacts will foster international cooperation between URSI member countries and research centers worldwide, leading to significant progress in radio science research.

For more information, please visit the event website: <https://www.ursi-gass2026.pl>

CIGRE Session

August 23-28, Paris, France



CIGRE invites you to attend the Paris Session 2026, the world's leading event for power system expertise. With thousands of participants from across the globe, this unique gathering is set to be a milestone on the journey to carbon zero.

Every two years, CIGRE delivers the world's foremost collaborative knowledge development and sharing programme for the power system sector. Through extensive remote collaboration and periodic face-to-face events, experts from around the globe contribute to advancing the industry.

For more information, please visit the event website: <https://session.cigre.org>

GCYLP Development Week 2026

September 14-18, Geneva, Switzerland

The Generation Connect Young Leadership Programme (GCYLP) is an exciting programme to engage, empower, and inspire young digital leaders and changemakers. GCYLP is supporting young visionaries from around the world who propose creative, far-reaching, innovative, and feasible community-driven projects aimed at creating a more inclusive and empowered digital future.

ITU in partnership with Huawei, is providing guidance, training, and financial support to 30 young fellows per year to enable them to practically implement digital development projects in their diverse communities across the world. Through this programme, young leaders have the unique opportunity to make new digital development ideas a reality, or to expand the impact of their existing projects!

For more information, please visit the event website: <https://www.itu.int/generationconnect/empower/generation-connect-young-leadership-programme-in-partnership-with-huawei-v2/>



Focus Group on Artificial Intelligence Native for Telecommunication Networks

September 22-23, Beijing, China

The ITU-T Focus Group on AI-Native Networks (FG AI-Native) was established by ITU-T Study Group 13 in July 2024 and will be launched after WTSA-24 aiming at exploring and defining the fundamental changes needed in network architecture to fully harness the potential of AI. This focus group seeks to identify the requirements, challenges, and opportunities that AI-native networks will bring to the global communications landscape.

AI-native networks refer to a new paradigm where AI is not merely an add-on feature but is deeply embedded in the core architecture, enabling unprecedented levels of automation, optimization, and intelligence.

The FG AI-Native Networks will focus on several key objectives, including researching AI integration in network architecture, identifying new use cases, addressing challenges and gaps, and collaborating with other bodies.

For more information, please visit the event website: <https://www.itu.int/en/ITU-T/focusgroups/ainn/Pages/default.aspx#>





The impact of international standardization on the resolution of international engineering disputes and response strategies

国际标准化对国际工程争端解决的影响及应对策略

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Abstract: International standardization has gradually evolved from a tool for technical coordination to a crucial factor determining the outcome of international engineering disputes. It plays a dual role in dispute resolution, acting as both a positive enabler and a constraining factor. This paper analyzes the role of standardization in the resolution of international engineering disputes from three dimensions: proactive prevention, in-process control, and post-incident handling. By sorting out its three core contradictions, the study traces the institutional roots and two-way influences. Ultimately, it proposes targeted strategies to promote their co-evolution and lay a solid institutional foundation for the high-quality development of international engineering.

Keywords: international standardization; international engineering; dispute resolution

1. Introduction

The global infrastructure construction wave and the continuous advancement of the Belt and Road Initiative have driven the continuous increase in the scale, technical complexity, and diversity of participants in international engineering projects. Frequent contract disputes, huge amounts involved, and long resolution cycles have become major challenges of industry development. Empirical studies suggest that standards differences and application conflicts are key triggers of international engineering disputes.

The International Organization for Standardization (ISO) and the International Federation of Consulting Engineers (FIDIC) have long advocated the standardization of rules to reconcile such divergences^[1]. While international standards offer common benchmarks, they often lag behind evolving engineering practices, triggering inherent conflicts between standardization and dispute resolution^[2]. Standards set clear boundaries to offer a reliable framework for adjudicators. Yet slow updates and the pursuit of universal applicability may undermine flexible discretion and case-specific fairness. This paper analyzes the conflicting impact of international

standardization on international engineering dispute resolution. It also analyzes conflict characteristics and institutional causes to build an adaptive standards framework and identifies pathways for balancing rigid rules and flexible governance.

2. The role of international standardization in international engineering dispute resolution

2.1 On the proactive prevention

FIDIC standards contracts unify contract templates and technical specifications by defining the division of rights and responsibilities, risk allocation, change procedures, and acceptance criteria. Standardized technical specifications transform requirements such as engineering quality, safety, and environmental protection into quantifiable objective indicators^[3]. This narrows the scope for interpretation in the contract, and curbs opportunistic behaviour.

2.2 On the in-process control

Disputes under arbitration or litigation take technical standards as the core basis for factual determination. The determination of key dispute points such as engineering quality, equipment performance, and construction compliance all require the reference of international standards as adjudication criteria. It will enhance the consistency and predictability of dispute resolutions.

2.3 On the post-incident handling

The expedited arbitration rules issued by institutions, such as the International Chamber of Commerce (ICC) and the United Nations Commission on International Trade Law (UNCITRAL), provide an efficient dispute resolution process and reduce the uncertainty associated with negotiations between the parties with the standardized procedures.

3. Specific manifestations of the conflict between standardization and dispute resolution

3.1 The contradiction between lagging standards and disputes arising from cutting-edge technologies

The development cycle of international standards usually takes 3 to 5 years, while the forms of engineering disputes evolve rapidly with technological innovation^[4]. Disputes in cutting-edge fields occur frequently, but the standards in the corresponding field are almost blank. This leads to a deadlock in dispute resolution.

3.2 The contradiction between the uniformity of standards and the heterogeneity of dispute scenarios

In fact, dispute scenarios are highly heterogeneous due to

differences in legal systems, host country laws, and industrial environments. The forced application of uniform standards can easily result in the phenomenon of “formal compliance but substantive injustice,” exacerbating the inequality of status between the parties involved.

3.3 The contradiction between the rigidity of standards and the flexibility of dispute resolution

Rigid standards tend to lock the two parties into a binary evaluation framework of “compliance/non-compliance.” It narrows flexible dispute resolution channels like negotiation and mediation, impeding substantive settlement and long-term business ties^[5].

4. The reasons and impacts of the contradiction between standardization and dispute resolution

The formation of the contradiction between standardization and dispute resolution has deep institutional roots. Standards development mostly adopts a consensus-driven, slow iterative model. Factors driving engineering disputes, such as technological innovations, financing model innovations, and geopolitical changes are constantly in rapid flux. On the one hand, standards development focuses on technical rigor and cross-scenario universality, focusing on pre-established rules and maintaining overall market order. On the other hand, dispute arbitration serves as an ex post remedy mechanism. It focuses more on clarifying the facts of individual dispute cases to boost resolution efficiency and restoring business relationships. During the development of standards, project owners leverage their dominant role in project initiation and financial advantages, holding a privileged position in shaping the rules. Meanwhile, the voices of contractors and third-party consultants carry insufficient weight.

However, these contradictions are not entirely negative. The contradiction between standardization and dispute resolution has both inhibitory and driving effects. Rather than being a zero-sum game, their interaction forms a dynamic feedback loop that continuously reshapes both institutional systems. The rigid application of outdated standards undoubtedly leads to unfair judgments, increases transaction costs, and undermines market trust. The standards gaps and flaws exposed by disputes have also created an impetus for the reform of the standards system. In turn, the updated standards provide clearer normative guidance for dispute resolution, reducing arbitral discretion and enhancing the predictability of outcomes. Furthermore, it drives the standardization and dispute resolution from mechanical adaptation toward co-evolution.

5. Response strategies: Building a responsive and adaptable co-evolutionary institutional environment

5.1 Promote the flexible upgrade of contracts and arbitration rules

Incorporating dispute-related clauses into mainstream contracts can complete the dispute resolution system. Enterprises should issue special arbitration guidelines for standards application, clarify the principles of special scenario discretion, and improve the expert assistant system.

5.2 Establish a regular cross-institutional collaboration mechanism

Enterprises should build an ISO arbitration joint mechanism to forecast emerging disputes based on precedents and compile white papers on standards application. They should also integrate arbitral standards interpretations into standards revision for dispute-driven standards evolution.

5.3 Strengthen the standards governance throughout enterprises' lifecycle

Enterprises should break through passive compliance thinking and incorporate standards management into their strategies^[6]. They should conduct standards applicability diagnosis during the bidding and negotiation stage, solidify a complete chain of evidence during the performance stage, and accurately cite flexible clauses to protect their rights during disputes. The ultimate result is to build a standards governance system throughout the enterprises' lifecycle^[7].

6. Conclusion

Essentially, international standardization conflicts with international engineering dispute resolution owing to clashes between certainty and flexibility, universality and contextualization. Their coordination can be realized by introducing a dynamic standards experimentation mechanism, promoting the upgrading of contract and arbitration rules, establishing a cross-institutional collaborative system, and strengthening governance throughout the enterprises' lifecycle. 

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The mandatory national standard,
GB 28007-2024, *Technical specifications for the safety of infants' and children's furniture*,
came into force on January 1, 2026.

This standard specifies general safety requirements for furniture used by infants and young children aged 0 to 14 in terms of materials, structure, flame retardancy, electrical safety, hazardous substance limits and warning labels, as well as safety requirements for specific products including children's high chairs, bunk beds, cots and folding cots, cradles, and upholstered furniture.

The implementation of the standard will help improve safety performance of furniture for infants and young children and protect their health and safety.

ISO Annual Meeting

Paris, Sept 28 - Oct 2, 2026

Under the theme **“Building trust in a changing world”**, the ISO Annual Meeting brings together the global standards community to turn shared challenges into practical, collective solutions.

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