WE WILL START AT 10:00 AM (CET)

SESEC VI Webinar – China Standardization - Recent Development

You are ***muted***

Use the ***Q&A or Chat Panel*** to submit your questions

Keep your questions ***short and concise***

Contact us: assistant@sesec.eu

Welcome to our website: https://sesec.eu/

Seconded European Standardization Expert in China (SESEC) Project

China Standardization - Recent Development

28 April 2026

SESEC INTRODUCTION

Partners and Role

SESEC is a visibility project co-financed by five European partners

SESEC Partners

- **European Commission (EC)**-The executive body of the European Union; Responsible for proposing legislation, implementing decisions, upholding the treaties and day-to-day management of the EU; DG Grow is the main partner (80%)
- **European Free Trade Association (EFTA)-**Iceland, Liechtenstein, Norway and Switzerland; Intergovernmental organization set up for the promotion of free trade and economic integration to the benefit of its four Member States; None EU members;
- **CEN**-European Committee for Standardization
- **CENELEC**-European Committee for Electrotechnical Standardization
- **ETSI**-European Telecommunications Standards Institute

SESEC INTRODUCTION

A Project co-funded by EC, EFTA, CEN CENELEC & ETSI

- **Promote** European and International standards in China
- **Improve** contacts between Project Partners and different levels of the Chinese administration, industry and standardization bodies
- **Enhance** visibility and understanding of the European Standardization System (ESS) in China.
- **Gather** regulatory and standardization intelligence
- **Undertake** technical lobbying

Goals

- The SESEC initiative supports **EC policy** and **ESOs strategic objectives** in China.
- Our ultimate goal is the enhancement of **EU-China dialogue and cooperation** in the field of standardization.
- It is notably expected to support the Framework Cooperation Agreement in place **between the ESOs and SAC.**

Project's Priorities

Priorities of SESEC

Horizontal:

- China Standards 2035
- Belt and Road Initiative
- Standardization Reform
- Institutional Changes in Chinese Government
- **Market Access (e.g CCC)**

Digital Transition

- IT in General
- Data
- Artificial Intelligence
- Quantum
- Industrial IoT
- 5G/6G

Green Transition:

- Energy Efficiency
- China RoHS
- Green Product Assessment
- Decarbonization
- New Energy (e.g.Hydrogen)
- Recycling

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Newsletters and Reports

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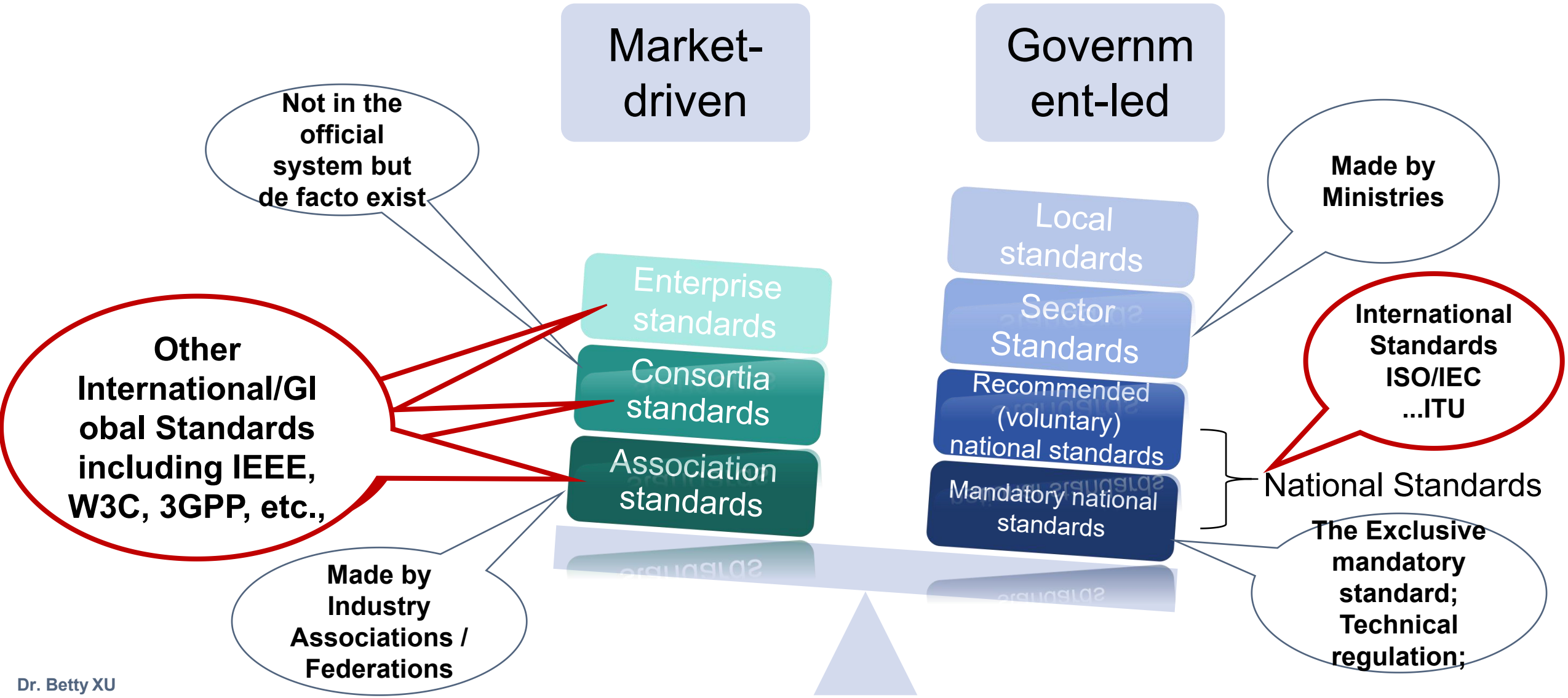
Newsletters and Reports

Table of Content

China’s Standardization System

China Standardization System

5 levels – National Standards, Sector Standards, Local Standards, Association Standards, and Enterprises Standards



Standardization System in China – Who is doing what

Government-led standardization

Some New Sector TCs/SCs/WGs in recent years (2025/2026)

TCs/SCs/WGs

- Develop standards
- Usually located in institutions under ministries
- Most of them are also making sector standards

SAC

- Manage national standardization work
- Project approval, numbering, WTO/TBT notification of mandatory national standards
- Develop voluntary national standards
- Filing sector standards and local standards
- Develop rules for numbering standards

Sector administrative authorities / Ministries - MIIT, MoT, RAILWAY, MOHURD

- Manage national standardization work
- Project approval, numbering, WTO/TBT notification of mandatory national standards
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- Filing sector standards and local standards
- Develop rules for numbering standards

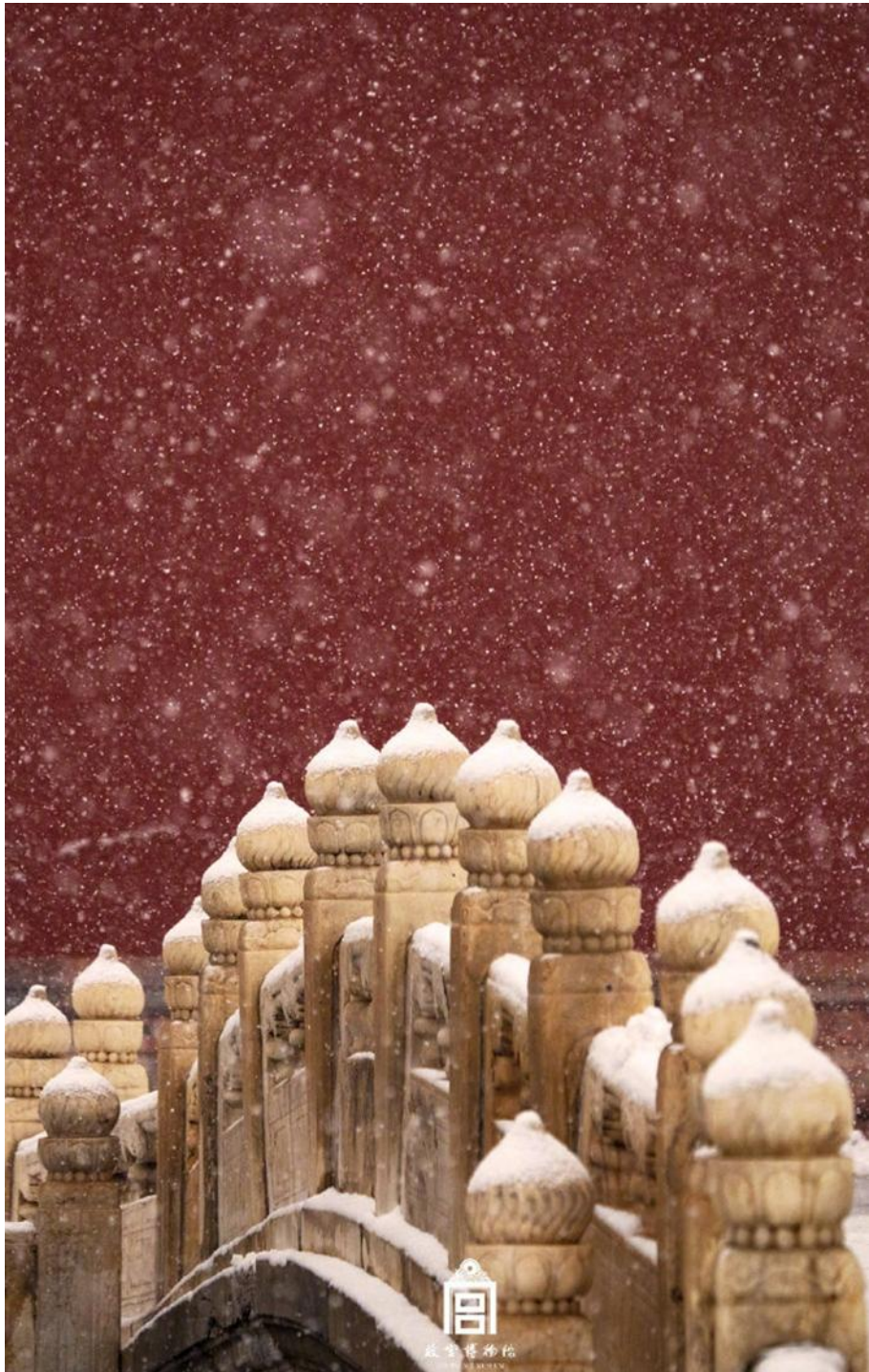
China Standardization Strategy – China's Outline for the Development of National Standardisation in Oct 2021

SESEC Betty XU 2022.05.24

Overview & Strategic Positioning

- **China Standardization Development Outline (2021)**
  - Released in October 2021 by the Central Committee of the Communist Party of China and the State Council of the People's Republic of China
  - First top-level strategic blueprint dedicated to standardization
  - Positions standards as a **core tool for national governance and competitiveness**
  - Supports China’s transition toward **high-quality, innovation-driven development**
  - Aligns with broader goals: digital economy, green transition, and global influence

- **Key Message:**
  Standards are no longer purely technical tools—they are strategic instruments shaping industry, trade, and global influence.



Key Objectives & Targets

- Build a **high-quality, unified national standards system**
- Strengthen the role of **standards in innovation and industrial upgrading**
- Promote integration of **technology, industry, and standardization**
- Expand **international standardization participation and influence**
- Improve **standards governance, efficiency, and implementation**

Key Targets by 2025 / 2035:

- Significant increase in **standard quality and effectiveness**
- Stronger **enterprise-led and market-driven standardization**
- Enhanced **alignment with international standards**
- Greater Chinese role in **global standard-setting**

Key Message:

- China aims to move from a “standards adopter” to a **standards leader** globally.

Key Actions & Implications

Key Actions proposed:

- Reform and streamline **multi-level standards system**
- Support **leading enterprises** to participate in standard-setting
- Develop standards in **emerging sectors** (AI, digital tech, green tech)
- Promote **“standards +” integration** (standards + innovation / industry / governance)
- Strengthen **international cooperation and strategic engagement**

Implications for Foreign Companies:

- Standards increasingly linked to **market access and competitiveness**
- Greater importance of **early engagement in Chinese standardization**
- Need to monitor **policy-driven standardization trends**
- Potential shift toward **China-led technical frameworks**

Key Message:

Standardization is becoming a **strategic lever shaping China’s industrial and global positioning**.

Overall Assessment (4 Years After Implementation)

China standardization remains a **strongly government-controlled system**

2017 Standardization Law introduced **market elements**, but state leadership remains dominant, (even some association standards are dominated by government)

Standards used as strategic tools to:

- Improve **product quality**
- Boost **indigenous innovation**
- Support **regulations and certification systems**

Increasing focus on:

- **Global influence (BRI, international standardization)**

👉Key takeaway:

Standardization = core instrument of industrial and governance policy

Overall Assessment (4 Years After Implementation)

Key Policy Developments (2022–2024):
Association standards policy (2022) / Action Plan (33 actions) / Revised National Standards Measures/ Quality Power Country Outline/ Updated Action Plan (2024–2025 priorities) / **no key policies or regulations in 2025**

👉Key feature: **Strong top-down coordination with increasing role of association standards**

Implementation Progress (Projects & Actions)

A. 7 Key Projects (ongoing)

- ✓ High-end manufacturing
- ✓ Industrial chain stability (ICV, PV, batteries, data)
- ✓ Carbon peak & neutrality (ESG, carbon footprint)
- ✓ Public safety
- ✓ Public services
- ✓ International participation

B. 5 Key Actions (ongoing)

- ✓ New infrastructure (industrial internet, IoV)
- ✓ Rural revitalization
- ✓ Urban & smart city standardization
- ✓ Social governance
- ✓ Elderly care services

👉Conclusion- Most of the target of 2025 were achieved because of the KPI driven. **Some not because of the governmental difficulties or unrealistic targets.**

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B. 5 Key Actions (o…

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- …ity standardization
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Comprehensive improvements and progress, though occasionally overreaching.

👉Conclusion- Most of the target of 2025 were achieved because of the KPI driven. **Some not because of the governmental difficulties or unrealistic targets.**

Overall Assessment (4 Years After Implementation)

Systems, Gaps & SESEC Observations

Progress:

Some systems advancing:

- Financing, Subsidy & credit incentives
- Standard–regulation linkage
- Copyright protection

Growing:

- International participation & Adoption
- Standardization in carbon & ESG and emerging technologies

Gaps:

Limited progress in:

- Enterprise-led standards setting or innovation system
- Policy integration
- Coordination mechanisms between different level of standards
- Internationally influential SDOs or consortia

Key Observations:

- System remains **complex and fragmented**
- Strong **government role in key sectors (e.g. cybersecurity)**
- Increasing **international ambition and influence**

Conclusions

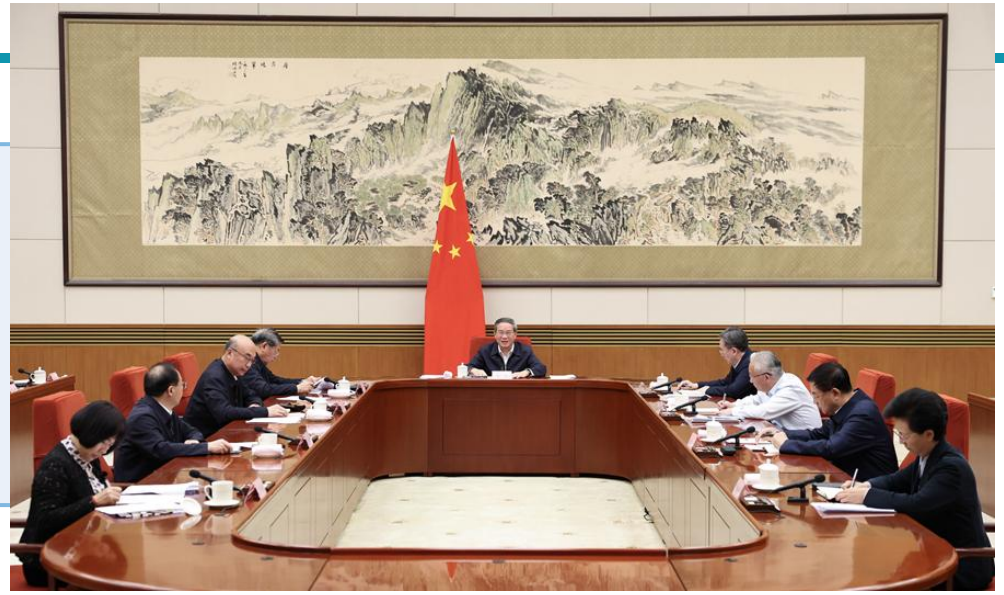
China's standardization system is expanding rapidly, but remains state-driven with uneven implementation across systems

Current Status and Challenges in China Standardization as of 2025

Source: Dr. Li Aixian, former vice president of China National Institute of Standardization

The 16th thematic study session of the State Council presided over by Premier Li Qiang in Oct 2025

The theme is "Strengthening Standards as a Guide and Support: Using Standards Upgrade to Drive High-Quality Economic Development".



Standards are fundamental to a modern industrial system and a unified national market. Advancing standardization reform, optimizing the standards system, and pursuing "standards-led, orderly upgrading "are therefore required. The goal is to accelerate industrial transformation, foster emerging sectors, and strengthen integration with the real economy, thereby driving high-quality development.

This high-level study session demonstrates the State Council's strong emphasis on standardization. Standards have now evolved beyond mere technical specifications embedded in products and services; they have become a vital manifestation of national competitiveness and a guiding force for innovation-led development.

This is a very high Level session and showed how China internal view on current standardization work. Some information delivered by China standardization Authorized Organization (SAC) is as below

Source: Dr. Li Aixian

China's Standardization System: Current Status

1. System Structure

Five-tier system: National, Sector, Local, Association, Enterprise standards

2. Key Figures (as of early 2026)

Indicator	Data
Total national standards	> 50,000
Mandatory national standards	> 2,500
Registered sector/local standards	> 150,000
Registered social organizations making standards	8,415
Published association standards	> 122,000
National technical committees	> 1,330
Committee members	> 62,000

3. International Standardisation Engagement

- Participation in ISO technical work: 99%
- ISO/TC secretariats hosted: 104 (4th globally)
- Chinese experts in ISO standards: > 14,000 (1st globally)
- International standards adoption rate: > 94%

Standardization is **STILL** assuming a more prominent fundamental, strategic, and leading role, indicating a new phase in the evolution of China's standardization system. **BUT…**

Source: Dr. Li Aixian

2. Existing Problems and Challenges identified by SAC

- **A fully mature ecosystem for developing advanced standards has yet to be established.**
  - Case/e.g. - High-end testing equipment (e.g., mass spectrometers) is largely imported, with many whole machines reverse-engineered.

- **Standards development lags behind the rapid evolution of new technologies and business models.**
  - Case 1 - In the smart home sector, users are often required to install a separate app for nearly every device they own.
  - Despite China's massive e-commerce scale (over 13 trillion yuan in online retail sales of physical goods and a 5.8 trillion yuan live-streaming market in 2024), standards for new service models—including platform governance, delivery personnel management and protections, and live-commerce practices—remain significantly underdeveloped.

- **The leading role of the top enterprises is insufficient**
  - A survey of 1,533 listed "Little Giant" companies (leading SMEs that specialize in niche sectors) revealed that over half have never participated in national standard-setting.
  - National IT standards see limited leadership from top firms.

- **Coordinating standards for emerging cross-sectoral products remains challenging.**
  - Examples include electric scooters and automated cooking robots.

Source: Dr. Li Aixian

2. Existing Problems and Challenges identified by SAC

Excessive Layers in the Five-Tier Standard System

- Overlap and contradictions exist among National, Sector, and other standards.
- Case 1- Two separate standards — one national, one sectorial — regulate fuel consumption limits for commercial trucks.
- Case 2 -Smart TV interfaces are addressed by both a national standard and separate sector standards from broadcasting, finance, electronics, and communications industries.
- Key areas such as corporate GHG accounting, product carbon footprinting, and zero-carbon industrial park evaluation are addressed by national, sector, local, and association standards.

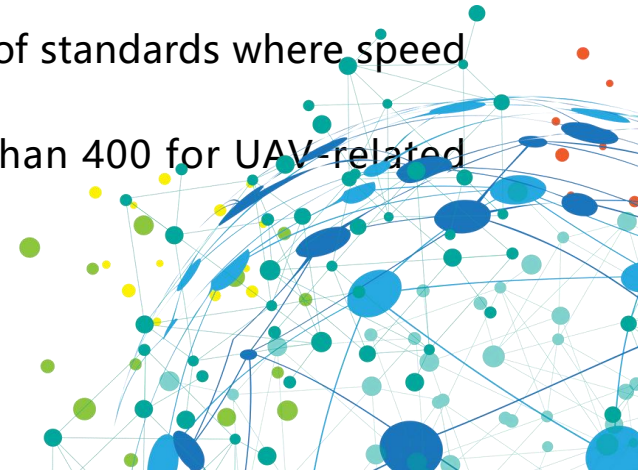
Local Standards Extending Beyond Regulatory Scope

- Among 28 local standards on connected vehicle technology and safety, some establish local market access conditions.
- Standards for tourism homestay accommodations also exhibit substantial local variations.

Variability in Quality and Innovation Among Association Standards

- Many social organizations prioritize speed and quantity over rigor, resulting in a volume of standards where speed often outpaces quality.
- There exist over 35 association standards for photovoltaic power stations and more than 400 for UAV-related technologies.

SESEC Comments – 5 layers standards and huge number of standards are quite difficult to co-ordinate.



Source: Dr. Li Aixian

2. Existing Problems and Challenges identified by SAC

Challenges exist at standards implementation

- A key mandatory food safety standard, enacted over five years ago, is reportedly known to only 55.5% of relevant entities.
- Inspection capabilities and technical resources at the local level are often insufficient for effective enforcement.
- Certain standards are not consumer friendly—for example, applying the *General Standard for Nutrition Labeling of Prepackaged Foods* requires a calculator.
- Even with a comprehensive local standards system for crops like Codonopsis, user feedback cites complexity and poor applicability, hindering adoption.

To deliver full value, standards must be closely integrated with testing and certification systems

It is believed by Chinese Authority that China faces a capability and commitment gap in the intensifying global battle over standards-essential patens (SEP) rules.

SESEC Comments – The Quality of some Chinese standards need to be improved. China still has some mis-concept on SEP (like encourage local SEP into standards)

Source: Dr. Li Aixian

2. Existing Problems and Challenges identified by SAC

Limited Global Influence

- Shortage of Globally Influential Industry Organizations
  - The ecosystem for globally-recognized, industry-led standards bodies remains in its early stages. **Currently, only around 20 such organizations originate from China**, with limited participation from international stakeholders.

- Talent Gap in Multidisciplinary and Leadership
  - While there is a significant number of international standards professionals, a shortage persists in experts proficient across standards, technology, communication, language, and governance.
  - For comparison, the U.S., Germany, and Japan have held senior ISO leadership roles 8, 6, and 5 times of China respectively.

- Trend Toward a Multipolar Ecosystem in International Standardization
  - Major professional organizations (e.g., IEEE, ASTM, SAE) are exerting growing influence on the current international standards system, which has traditionally been centered around the three principal bodies, ISO, IEC, and ITU.

- Technical Regulation-Standard Synergy: A Global Model
  - WTO TBT rules distinguish mandatory technical regulations from voluntary standards, yet in practice, regulations systematically reference standards for implementation. This dual approach ensures clear policy enforcement while maintaining adaptability to innovation, forming a framework now widely adopted **internationally.**

SESEC Comments – China Still hope to increase their influences on International standardization. More globally-recognized, industry-led standards bodies will be set up in China from 2025.

Source: Dr. Li Aixian

3. Recommendation from SAC on China Standardization Work

Based on the Analyses above, it requires to accelerate comprehensive and deepened reforms to address weaknesses and advance standards upgrading.

Upgrading standards **requires institutional reform** that moves beyond mere technical revisions. It necessitates balancing three critical relationships.

1. Government-Market: The government need focus on top-level design, regulating baseline standards (safety, health, environment), guiding key emerging fields, and enforcing implementation.
2. National-Local Standards: Streamline the hierarchy for a clear framework of unified national rules complemented by distinctive local adaptations.
3. Industry Authorities - Standardization Regulators: Strengthen unified planning and collaborative implementation to ensure consistency across the standard system.

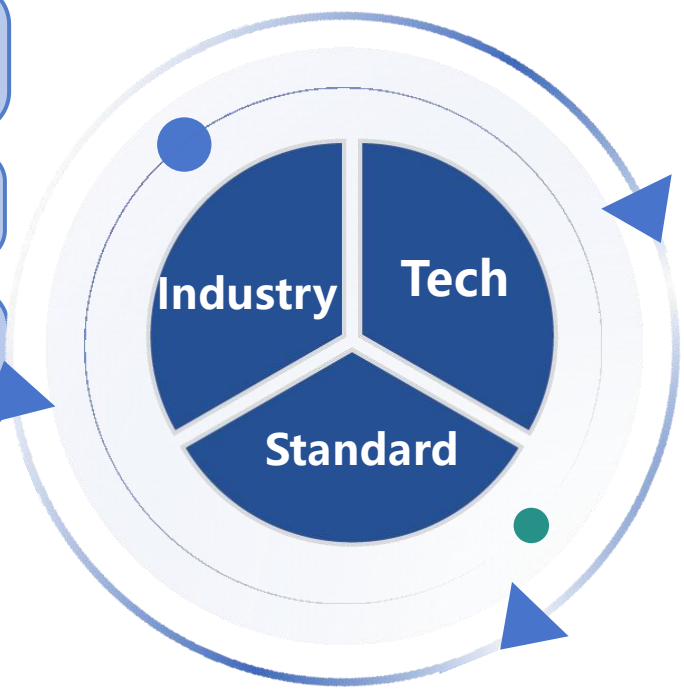
SESEC Comments – It is under this context, China started its new round of Standardization Reform in 2025

Source: Dr. Li Aixian

3. Recommendation from SAC on China Standardization Work

High quality development relies on technological self reliance — a principle that must also guide standardization. Leverage standards upgrade to bridge and embed progress across the entire innovation and industry chain.

1. **Develop Forward Looking Plans for the Deep Integration of Technology, Industry, and Standards.**
2. **Launch pre- standardization research in key and emerging technologies.**
3. **Empower tech leaders to lead standardization efforts.**
4. **Strengthen pathways from R&D to formal standards.**



Source: Dr. Li Aixian

3. Recommendation from SAC on China Standardization Work

- **A unified and coordinated standards system** serves as critical infrastructure for a united national market, enabling the efficient flow of factors and optimal allocation of resources.
- A key near-term task is to accelerate the establishment of such a national system and **remove barriers between standards set at different levels.**

1. Optimize the Structure of Government-Mandated and Market-Driven Standards
2. Reform and optimize the Chinese standards system to **address fragmentation and redundancy**, emphasizing speed, quality, and mandatory enforceability where required.
3. Restructure local standards by drastically reducing and integrating provincial and city-level ones.
4. Elevate emerging-field association standards by fostering strong organizations, structuring their development, and promoting their adoption as national standards.

Source: Dr. Li Aixian

3. Recommendation from SAC on China Standardization Work

To maximize the contribution of standards to high quality economic development, **an integrated, coordinated, and intelligent ecosystem for standards application** must be established.

1. **Make standards more user-friendly**
2. **Strengthen integrated quality infrastructure**
3. **Strategically align standards development with patent planning**
4. **Refine the evaluation and feedback mechanism for standards implementation.**

Source: Dr. Li Aixian

3. Recommendation from SAC on China Standardization Work

The digital shift across the economy and society, driven by new-generation information technologies, necessitates a parallel digital and intelligent transformation across the entire standards lifecycle.

1. **Expedite the National Digital Library of Standards and Intelligent Standards Development Platform.**
2. **Advance digital public platforms to make key standards machine readable, executable, and interactive, aligned with international practice.**
3. **Convert standards from text into intelligent tools through digital technology.**

Level 0: Paper Based– Traditional printed format

Level 1: Open Digital Format (e.g., PDF) – Enables digital search and reading.

Level 2: Structurally Machine-Readable Documents – Content is tagged and searchable. Syntactically

Level 3: Machine-Readable Content – Fine-grained structuring and annotation enable true machine oriented use.

Semantically

Level 4: Machine-Interpretable Content – Features information modeling and self learning capabilities, supporting intelligent Q&A and proactive delivery of standards based on demand. Pragmatically

Source: Dr. Li Aixian

New Round China Standardization Reform in 2025

Summary of SAC identified Challenges

Structural Issues and Capacity Gaps in China's Standardization

1

Supply-Demand Mismatch

- Insufficient standards in emerging fields (AI, live-streaming e- commerce, smart homes)
- Standards lag behind rapid technological and business model changes
- Mandatory standards do not yet fully cover algorithm security and content governance, etc.

2

Limited Market Player Participation

- Leading enterprises play a limited role in key sectors like IT
- 50% of "Little Giant" SMEs have never participated in national standard-setting

3

System Fragmentation

- Five-tier system creates overlaps, redundancies, and contradictions
- Local standards extend beyond legal scope, creating hidden trade barriers
- "One product, multiple standards" (e.g., smart TV interfaces)

4

Quality and Implementation Gaps

- Weak research foundation resulted in some standards "outdated upon issuance"
- Low awareness of mandatory standards (e.g., 55.5% awareness for a food safety standard)
- Standards are not user-friendly for farmers, consumers, or SMEs
- Weak integration with testing, certification, and gaps in standards-essential patents capabilities

5

Internationalization Challenges

- **Only ~20 globally influential industry-led standard organizations from China**
- Severe shortage of multidisciplinary, leadership-capable experts
- **Lag behind US, Germany, Japan in senior ISO leadership roles**
- Growing multipolarity in international standardization ecosystem

New Round China Standardization System Reform from 2025

Conclusion from SAC to State Council

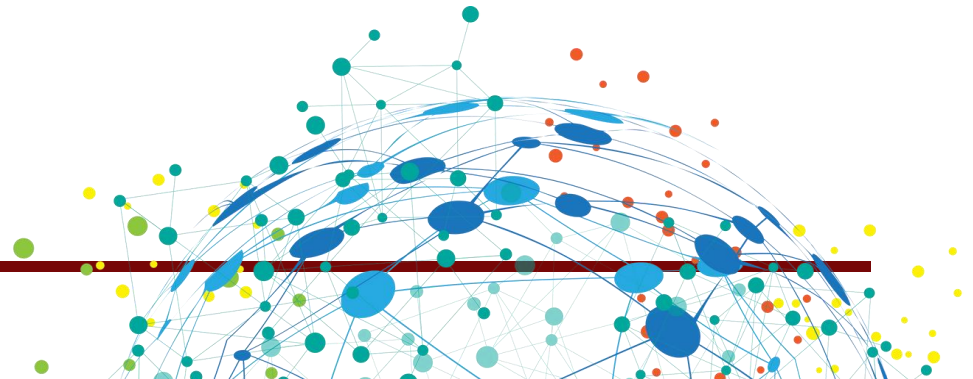
Standard Upgrading as Institutional Reform: China's New Era Direction

1. Balancing Three Critical Relationships

- National vs Local standards – Streamline hierarchy; **unified national rules with local supplements**
- Industry authorities vs Standardization regulators – Strengthen coordination for system coherence
- Government vs Market – Government sets baselines (safety, health, environment); market drives innovation

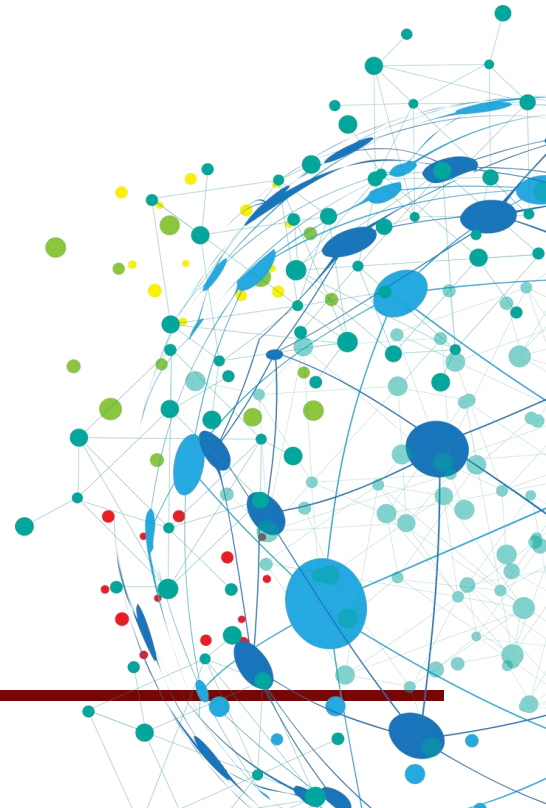
2. Key Strategic Actions

- Integrate technology, industry, and standards: launch pre-standardization research in emerging fields
- Optimize the standards system: drastically reduce local standards; raise quality of association standards
- Build a high-level implementation ecosystem: strengthen linkages with testing, certification, and patents
- Accelerate digital transformation: move toward machine-readable, executable, and interactive standards



New Round China Standardization System Reform from 2025

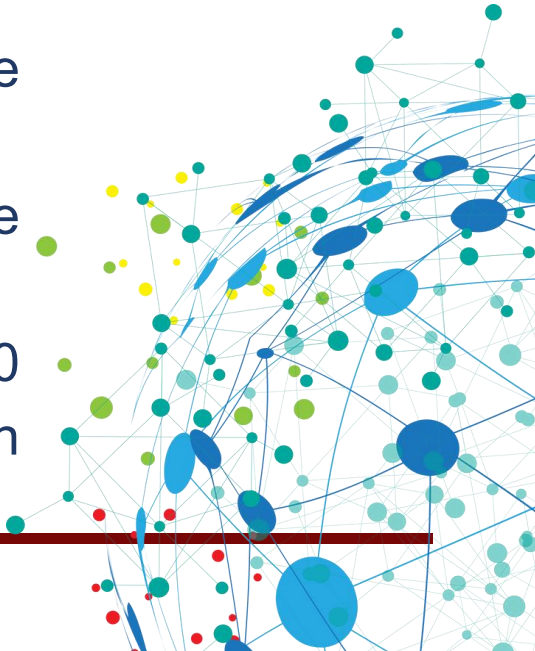
- **The latest round of China's Standardization Law reform began in 2015.**
- **The revised Standardization Law was adopted in 2017 and entered into force on 1 January 2018.**
- **The Outline for National Standardization Development was released in October 2021.**
  - A wide range of standardization initiatives and projects have been implemented since its release.
  - The number of standards across different levels has increased significantly.
  - Although the Outline aimed to streamline the hierarchy of China's standardization system, this objective has not been fully achieved in practice.



New Round China Standardization System Reform from 2025

What had happened?

- **Reform on reducing local standards**
  - Local standards cut to 60% since March 2025 -
  - Local Standards making level- from County to City or Province March 2025
- **Mandatory national standards were made by ministries**
- **Reform on Association Standards,**
  - Around 5,000 organizations may lose their qualification to issue association standards; (March 2025)
  - a 30% similarity cap with existing standards now applies to eliminate low-quality or duplicative work.
  - Over 40% of organizations lack basic capacity, and nearly 2,000 “zombie standards” have been abolished due to no real implementation or adoption.



New Round China Standardization System Reform from 2025

What had happened

- **A lot of standardization schemes have been cancelled, like**
  - Enterprises Top Runner System, （December 2025）
  - Standardization Innovative Enterprise, （23 March 2026）
  - Standards Innovation Base Assessment, （23 March 2026）
  - Standards Innovative Enterprises Assessment ） （Dec 2025）
  - Performance Assessment of Association Standardization Organizations） （Dec 2025）
- **Some Schemes in “China Standardization Strategy” are not mentioned or to implemented anymore, e.g.**
  - Accreditation of SDO by SAC (ANSI- model)
  - Standards being used as the intangible asset for finance and banking
  - Non- national standards submission (to SAC)

New Round China Standardization System Reform from 2025

What is under discussing or debating

- **Reduce the layers of standards**
  - It has been discussed for a long time
  - State council is trying solve the problem
  - Currently – National standards vs Sector standards – which will be winning?
- **SAC vs Different ministries**
  - Power battle and sector competition between different ministries
  - MIIT in 2026 set-up 13 new TC (e.g. MIIT TC 01 Artificial Intelligence vs SAC SC 42 Artificial Intelligence)
  - A lot of New NEA TC (43 TC)
- **Association Standards – functions, roles and performances**
- **Will Enterprises Standards still exist and be registered in China national standards Information Platform?**

SESEC Comments – They are all under the internal or ministriy-level discussion and public is not aware of it

Summary

- China’s standardization system has **expanded significantly in scale and scope**, and strong international participation
- Standards are increasingly positioned as a **strategic policy tool** to support industrial upgrading, governance, and global influence
- SAC itself identified the problems and issues for China standardization system and state Council is trying to make China standardization reform by coordinating different ministries.

SESEC Conclusions

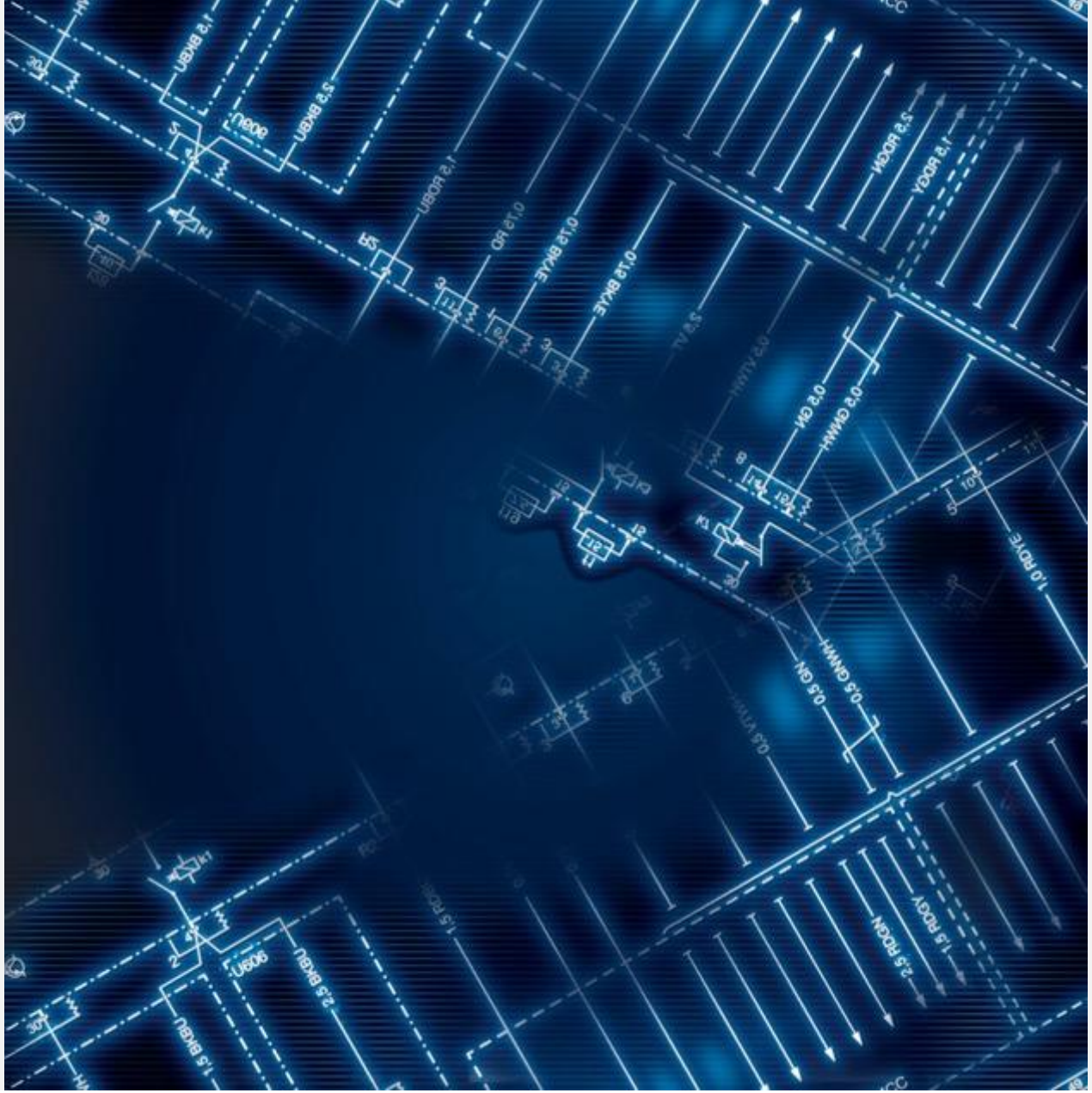
- China’s standardization system is evolving into a **strategic governance and industrial policy instrument**, with growing global ambition
- However, **structural inefficiencies, uneven implementation, and limited market-driven dynamics** remain key constraints
- The ongoing reform (since 2025) signals a shift toward:
    - **Stronger central coordination**
    - **System simplification (especially reducing local/association standards)**
    - **Streamline national and sectors standards**
    - **Reducing unnecessary roles and functions of standards (a pragmatic development direction)**
    - **Closer integration of standards with innovation, industry, and digital tools**

SESEC Recommendation

- The current round of reform primarily reflects an **internal restructuring and rebalancing** of China's standardization system.
- Given China's current economic conditions and geopolitical uncertainties, **standardization may receive relatively less emphasis**, with potentially reduced ambition compared to previous years.
- More **pragmatic approaches and concepts** are being introduced, which are also likely to be reflected in China's engagement in international standardization activities.
- At the same time, **enhancing the international competitiveness and influence** of Chinese standardization will remain a long-term priority.
- Compared to previous years, the system may shift toward **producing more targeted and impactful standards with relatively limited resources**.
- EU stakeholders can expect a **less redundant and more streamlined standardization system**, with improved efficiency and clearer functions.

Recommended Actions

- **Monitor developments closely**
- **Engage early Focus on implementation**
- **Strengthen local presence if possible**.
- **Track priority sectors** – Particularly AI, digital technologies, and green transition areas closely linked to industrial policy.



Thank you!

April 28, 2026