



# China in International Standards Setting

USCBC Recommendations for Constructive Participation

February 2020



THE US-CHINA BUSINESS COUNCIL

美中贸易全国委员会

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# Introduction

Standards serve as the building blocks for product development and help ensure functionality, interoperability, and safety. Amid trends in both the United States and China that are pulling apart technology supply chains, standards are the glue that make technology compatible between both countries and the rest of the world.

But the landscape for standards setting is complex. Countries set their own standards through a variety of processes, and they also send stakeholders from government, industry, and academia to international standards-setting organizations (SSOs). Countries should also strive to adopt international standards in their domestic systems.

China's increasing role in international standards setting has brought immense value to SSOs. At the same time, with greater prominence comes increased responsibility. Collaboration between the US and Chinese governments, together with international SSOs, will facilitate China's participation in ways that mitigate the potential distortions it may bring.

As China continues to play an increasingly prominent role, the US-China Business Council (USCBC) interviewed representatives from over 30 member companies and other stakeholders to better understand the challenges arising in this changing landscape and recommend constructive solutions.

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# Increased Chinese Participation in International Standards Setting

China's standards policy efforts began picking up in 2015 with its [Standardization Reform Plan](#) and [Five-Year Plan for Standardization](#) covering the period from 2016 through 2020. Both initiatives highlight China's high-level goals, namely, to:

- Participate in at least half of all standards drafting and revision efforts in recognized international SSOs;
- Establish China as a “standards power” by 2020;
- Strengthen China's participation in the governance of international SSOs;
- Increase the number of Chinese-held leadership positions in technical bodies; and
- Promote Chinese standards abroad through overseas construction contracts and equipment exports to help Chinese companies “go global.”

These policies reflect a two-pronged strategy to increase China's standards influence globally—by strengthening its sway in international SSOs and encouraging other countries to adopt Chinese standards. This report focuses on China's efforts in international SSOs.

In-line with China's standards policy goals, China's participation in multilateral institutions as well as multi-stakeholder industry consortia has increased dramatically. While China has historically had very high participation rates in the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), two of the largest multilateral SSOs, it has taken a much greater leadership role in standards-drafting technical committees in recent years. Those in a leadership capacity are able to influence the agenda, how conversations are structured, and how time is allocated.

## SSOs: Multilateral vs. Multi-Stakeholder

In multilateral SSOs, each country gets one vote and their national committee coordinates their national position for a given standards proposal amongst various stakeholders from that country. Multi-stakeholder SSOs, on the other hand, may adopt a variety of different structures. In some organizations, each company participating gets a vote, and others operate on a one-expert-one-vote basis.

From 2011 to 2020, the number of Chinese-occupied secretariat positions in technical committees (TCs) or subcommittees (SCs) increased by 73 percent in ISO. In IEC, they increased 67 percent from 2012 to 2020. The number of secretariat positions occupied by other major participants like the United States, Germany, and Japan in both organizations remained relatively flat over these time periods.



Similarly, Chinese companies participating as voting [members](#) in the Third Generation Partnership

Project (3GPP), the multi-stakeholder body responsible for 5G standards setting, have more than doubled in the past few years to 110 in January 2020, more than twice the 53 US voting members.

## The Benefits of Constructive Chinese Participation

Encouraging China to be a constructive and unbiased participant in international standards setting has been a longtime focus for US advocacy. As both the largest producer of goods exported across the world and a massive market for imported goods and international investment, China's robust input in international standards is critical to ensure the creation of balanced, comprehensive standards that serve industry needs.

Chinese participation in international standards setting also has some positive effects on China's domestic standards environment:

- Greater standards compatibility:** China's participation in international standards setting has led to a growing acceptance of international standards as a basis for national standards. Greater alignment between international and Chinese standards can greatly reduce engineering costs and the time needed for a foreign company to bring a product to the Chinese market, reduce market access barriers, and also allow Chinese companies greater ease in exporting around the world and investing abroad.

- **Promotion of due process:** As China becomes more familiar with standards-setting procedures and expectations in international SSOs, it is more likely to trickle down to improve China's domestic SSOs, bringing them more in-line with World Trade Organization (WTO) [principles](#) for standards setting.
- **Opportunities for technical discussions in neutral forums:** International SSOs provide an inclusive venue and encourage constructive debate. If participants feel that the lead drafter already has a predetermined outcome in mind, which has been reported in some Chinese SSOs, participants are less likely to express dissenting views that would result in productive debate. Exposure to foreign perspectives in these venues may also result in the drafting of more comprehensive Chinese standards.

## WTO Standards-Setting Due Process Principles

1. **Transparency:** Essential information should be easily accessible to all interested parties in a timely manner.
2. **Openness:** SSO membership and all stages of standards development should be open on a non-discriminatory basis.
3. **Impartiality and consensus:** Standards-setting processes should not favor certain interests and procedures should account for the views of all parties concerned, aiming to reconcile disagreements.
4. **Effectiveness and relevance:** Standards should be relevant to market needs and technological development and should not distort markets, hinder competition or innovation, or favor the interests of certain regions.
5. **Coherence:** SSOs should avoid duplication and overlap of work with each other.
6. **Development dimension:** Stakeholders should account for the constraints of developing countries to effectively participate in standards setting and should provide technical assistance where appropriate.

# Recommendations

## For the Chinese government:

- Adhere to the spirit of WTO standards-setting [principles](#) when participating in international standards-setting activities, and also align domestic processes accordingly. Adhering in letter and spirit to these principles domestically would help Chinese companies participate more effectively in international standards setting.
- Directly adopt international standards in accordance with China's responsibilities as a signatory to the WTO Agreement on Technical Barriers to Trade Code of Good Practice for the Preparation, Adoption, and Application of Standards ([Annex 3](#)), which stipulates that countries should use international standards as the base for their domestic standards. This is also in-line with the Standardization Administration of China's stated [goal](#) of adopting 90 percent of recognized international standards in key areas.
- Require users of internationally accepted standards—which are often copyrighted—to obtain permission from the IP rights holder and comply with their stated requirements. Stronger copyright protection would demonstrate China's intention to support the international standards ecosystem since copyright royalties from standards are essential for some international SSOs to operate effectively. Using legitimate standards would also give Chinese engineers timely access to revisions.
- Expand the use of China's mirror committee mechanism. Having a better-coordinated national position would help lend credibility to Chinese positions at one-country-one-vote SSOs.

### Chinese Adoption of International Standards

Only around [one third](#) of current national standards issued by the Standardization Administration of China (SAC) are adopted fully or in part from international standards. Official [statistics](#) indicate the proportion of Chinese national standards issued each year that adopt international content has shown a steady decreasing trend over the past decade from 35 percent in 2010 to 24 percent in 2019.

## Mirror committee mechanism:

A system through which a country sets up a standards-setting committee that corresponds to a committee in a one-country-one-vote SSO in order to coordinate the country's position on a given standards project. For example, TC260, the Chinese TC covering cybersecurity, directly mirrors ISO/IEC JCT1/SC27. It is common practice for the United States and the European Union to use mirror mechanisms to form a position that reflects all stakeholders in their markets.

### For the US government:

- Encourage constructive Chinese participation that is in-line with internationally accepted practices. For example:
  - Make visa approvals for Chinese participants in US-hosted standards-setting meetings in a timely manner so the United States remains a desirable location for standards-related meetings and maintains its level of influence in international standards setting.
  - Clarify that export control [restrictions](#) do not apply to regular interactions with entity-listed Chinese participants in international standards-setting activities to prevent the unintended effect of US companies sidelining themselves in certain SSOs out of a fear of legal repercussions. This could diminish their ability to provide timely technical guidance to standards.
- Be active in regional forums with Chinese involvement, such as the Asia-Pacific Economic Cooperation, the G20, the Organization for Economic Cooperation and Development, and the WTO, to promote standards-setting best practices.
- Encourage the US private sector to stay informed and engaged in international standards setting. The US government could work more actively to identify opportunities for companies to participate in international standardization activities and facilitate cooperation between the US and Chinese private sectors on standardization issues.

### For the US and Chinese governments and international SSOs:

- Provide training for all participants in international SSOs to facilitate their understanding of standards-setting procedures and technical expectations for standards proposals.

# Mitigating Distorting Chinese Behavior in International Standards-Setting Bodies

US and Chinese standards-setting systems are fundamentally different. In the United States, standards are developed through industry-led processes and tend to be voluntary, with much of the funding coming from companies. By contrast, most standards setting in China is government-led, and standards can be mandatory. There is concern that as Chinese stakeholders become more active in international standards setting, they could change rules and norms in a way that introduces weaknesses that exist in the Chinese system, both in due process as well as the technical quality and long-term relevance of the resulting standards.

## The Relationship Between Standards and Intellectual Property

There is a lot at stake in the standards-setting process, since standards can create competitive advantages for companies when international rules are aligned with the technical specifications of their products. This is especially true in intellectual property-intensive industries like information and communications technology. If a company has a patent for a technology required to meet a standard—called a standard-essential patent (SEP)—any company wishing to use this technology must license this technology and pay royalties. Therefore, international standards can determine which companies receive billions of dollars in equipment sales and licensing royalties for years to come.

Some Chinese policies and official statements characterize international standards setting in a competitive context as a tool to advance a domestic industrial policy agenda. China's current standardization [five-year plan](#) includes the goal of "promoting advantageous and special Chinese technology standards to become international standards to serve Chinese enterprises and industry going global." China's standards policies can amplify the market-distorting effects of its broader [industrial policies](#) like Made in China 2025, which provide disproportionate government support for Chinese companies in an effort to create globally competitive national champions.

While some Chinese government support is constructive, such as training programs focused on due process and expectations for technical review of their proposals, other methods are more concerning. For example, local governments across China provide [financial incentives](#) for companies to set standards, and compensation is often highest for companies involved in setting international standards. This is likely a contributing factor to the large numbers of low-quality

Chinese standards proposals in international SSOs. In some cases, subsidies incentivize Chinese participants to split up content into several proposals, which boosts national statistics, but does not necessarily translate directly to influence.

## Recommendations

### For international SSOs:

- Maintain standards-setting procedures that reduce participation driven by bureaucratic fiat or participation for participation's sake. Many bodies are making adjustments to ensure that they continue to operate smoothly as Chinese participation increases.

Concern	Mitigation Method
<p><b>Potential abuse of leadership positions:</b> Companies and experts raised concerns that Chinese stakeholders could leverage their authority to promote Chinese-led proposals without consensus or block certain proposals for the purposes of economic advantage or national prestige.</p>	<p>Upholding strong procedural due process and structured governance makes it difficult to leverage leadership positions to force through or block proposals.</p>
<p><b>Government pressure in voting:</b> Companies raised concerns that Chinese stakeholders are sometimes pressured by the Chinese government into voting as a bloc on proposals that would advance Chinese industrial policy goals for strategic industries even if such proposals are contrary to worldwide standards optimization.</p>	<p>International standards setting has always involved coalition building, but this is typically industry-led rather than government-coordinated. Standards-setting procedures that incentivize coalition building based on what is best for the industry limit opportunities for governments to apply pressure.</p>
<p><b>Low-quality proposals:</b> Some companies and experts complained that Chinese stakeholders submit large numbers of proposals that are low-quality or irrelevant to market needs in some industries, including for products that China does not actually produce. This takes valuable time and resources away from considering serious proposals.</p>	<p>Rules supporting consensus-based standards make it difficult for a single participant to push through low-quality proposals.</p>

## For the Chinese government:

- Support industry-led participation, which will ultimately produce the most effective standards for Chinese companies. If the Chinese government promotes certain technologies over others, especially in emerging technologies that are not yet mature enough for standardization, it may hamper innovation by limiting the choices of companies.
- Eliminate subsidies that incentivize quantity of standards over quality. Low quality proposals are not often successful in international SSOs with strong due process, and indiscriminate incentives waste Chinese government resources.

## For the US government:

- Support US stakeholders with more resources to bolster industry-led participation in international standards setting. For example:
  - Provide the venue or funding to host major meetings for international SSOs. Because it is difficult for industry to fund large international standards gatherings, meetings are more frequently held in countries like China where the government is willing host.
  - Provide steady funding to allow subject matter experts that are also government employees to participate consistently in various SSOs. Having consistent funding over multiple years ensures that these experts are able to provide input in the full cycle of the standards-setting process, which can take two to four years.
  - Contribute to the travel costs of US experts attending international standardization meetings.

## SSO Responses to Increased Chinese Involvement

One company raised an example of a multi-stakeholder SSO that introduced measures strengthening anonymous voting to prevent outside actors from pressuring stakeholders. Another interviewee explained how certain TCs at another multi-stakeholder SSO were imposing more stringent eligibility qualifications for experts who vote on standards proposals to avoid being flooded by participants that are not qualified to make contributions to standards setting and are only there to influence a vote.

# Conclusion

Increased Chinese participation in international standards setting has brought great benefits to US industry and international SSOs. China's input has led to more comprehensive international standards and also increased the number of international standards adopted in China, reducing barriers to US companies that operate there. Despite China's progress, there are still legitimate concerns about how certain behaviors could drive international standards setting away from commonly accepted WTO principles in pursuit of Chinese industrial policy goals, or have distortionary effects by flooding the system with Chinese proposals. Nevertheless, USCBC member companies expressed confidence that such concerns could be mitigated through proper vigilance by international SSOs and greater multilateral cooperation. As the two largest economies in the world, it is essential that the United States and China continue to work together in setting standards so that the highest-quality technology remains interoperable not just between both countries, but globally.

# Acknowledgements

Many thanks to all of the USCBC member company representatives who took their time to provide input for this report. Conversations with experts from the American National Standards Institute, ASTM International, and the Telecommunications Industry Association were also instrumental to this report. Any factual inaccuracies are the responsibility of USCBC alone.