Towards a European response to the emerging "geopolitics of standards": the role of China

Report from the workshop *Geopolitics of standards*, 26 April 2019[1]

On 26 April 2019, the Swedish Institute of International Affairs (UI) hosted a closed expert workshop – "Geopolitics of standards" – in Stockholm. The workshop gathered key stakeholders, policymakers, researchers and representatives from standards setting organisations across Europe. The aim was to explore the geopolitical impact of technical standard setting, with a particular focus on China and Europe. The workshop was part of a larger project on "Standard Power" led by UI in partnership with the Swedish Standards Institute (SIS) and the Association of Swedish Engineering Industries (Teknikföretagen). These proceedings provide a brief overview of the workshop discussions, which were held under the Chatham House rule.

Aim and purpose

While technical standard setting might appear to be no more than a consensual search for the technically most optimal solutions, it is today obtaining an increasingly geopolitical function. While there has always been commercial competition among companies, as the international political order shifts, standard setting has become a crucial arena for normative and geopolitical conflict between states, most crucially the United States and China. Influencing international standardisation is becoming a powerful tool for advancing political objectives. Europe must respond to these developments, particularly as it has always punched above its economic weight in international technical standardisation and has a high stake in the field.

> **Box 1: What are technical standards?**
> Technical standards are defined as voluntary specifications that should enable the interoperability of products and technologies. Technical standards can be simple measures such as paper size. The widespread A4 format, for example, makes it easier to produce paper that works in printers around the world and across different manufacturers. However, most technical standards are much more complex than the size of a sheet of paper. In many cases, technical standards will contain patented technology and intellectual property rights (IPR). Technical standards are set by private associations that hold a state-issued mandate to do so. Technical standardisation is essentially a form of private self-regulation with the explicit consent of public agencies (state or European Union).
> For more information see the UI Brief 2/2019, which is available to download here.

China has taken on a more active role both in international standards setting organisations and in internationalising its own domestic technical standards outside established institutions. The country has recently identified technical standardisation as an important avenue through which it can enhance its international influence. There is an urgent need to better understand and address these developments and their implications for Europe.

---

[1] This report is authored by Maja Björk. The workshop was organised by the Europe Programme at the Swedish Institute of International Affairs (UI). For any inquiries, please contact Björn Fägersten (Head of Program, bjorn.fagersten@ui.se) or Tim Rühlig (Research Fellow, tim.ruhlig@ui.se).

Analysing China's advances in technology and standardisation, and exploring Europe's role and scope for action was therefore a major focus of the discussions in the workshop.

Panel I: Europe, China and the emerging tech-confrontation

The first panel mainly focused on China's technological development and advances, including the rapid rise of the Chinese multinational technology company Huawei. It also addressed the European position and what it should do moving forward.

Europe's information and communications technology (ICT) ecosystem is currently mainly reliant on hardware from China and software from the USA. The vulnerabilities embedded in ICT and 5G cannot be fully mitigated, but Europe should address the level of dependence on Chinese and US technology. In the long run, possessing intellectual property rights (IPRs) will not be enough. Europe needs to step up its ICT production. While it was widely agreed that Europe should be cautious about its reliance on supply chains, no consensus emerged on how to address technological dependency.

Nonetheless, Europe still has decisive strengths. For example, a large share of foreign direct investment (FDI) still originates in Europe. Europe also has highly specialised small and medium-sized enterprises (SMEs) that regularly come up with highly innovative ICT applications. For these SMEs, the interoperability created by international technical standards is particularly important. In fact, smart regulation and standard setting were identified as Europe's most promising instruments for influencing ICT development in the long term. Hence, it is no accident that the EU's new communication on Europe-Asia connectivity emphasises the role of standard setting, including technical standardisation.

It will, however, be important to be careful about maintaining Europe's standard setting credibility and to avoid introducing too much politics into technical standardisation. It will also be important for Europe to maintain a multilateral approach to technical standardisation by promoting multilateralism with the USA and China, and engaging with other countries that might otherwise be drawn to alternative approaches.

More concretely, standard setting was identified as a crucial component in mitigating the emerging confrontation over the Chinese tech giant Huawei. While the tough US approach could lead the world into a systemic confrontation, a purely technological response focused on the certification of products will not mitigate existing security risks. Ultimately, the confrontation between Chinese vendors, such as Huawei, and the USA comes down to the issue of trust. Our levels of trust, in turn, tend to be determined by our trust in the legal systems in which vendors operate. Since it is not possible to immediately change supply chains or alter the legal systems of other countries, standards and international regulation become all the more important.

Huawei was described as more strategic, more competitive and more innovative compared to previous generations of Chinese technology companies. The company offers high quality products and services, and has quickly become very successful. It was also noted that, due to the changing technical environment, Huawei should be viewed as only the first of a long line of similar cases to come.

Finally, the discussion turned to the difficulties that China might face in the long term. State-owned enterprises (SOEs), for example, are inefficient enough to risk becoming a burden on the Chinese economy. This economic challenge could threaten the success of China's Belt and Road Initiative (BRI).

Panel II: China's international standardisation strategy

The second panel focused on China's new approach to technical standardisation in three dimensions: its domestic standardisation reform, its increasing engagement in international technical standardisation organisations and its efforts to internationalise its own domestic standards beyond these institutions.

Domestically, China is searching for the standards system that serves the country best. This could result in a standardisation system that is similar to the European system, one that is similar to the US system or a mix of both, or even to a very different approach. Even after the recent standardisation reform – a new standardisation law that entered into force in 2018, which promotes association standards but maintains a parallel state-driven approach – all these options remain on the table. The Chinese standards system looks very different from the European system and is largely defined by a diversity of actors and institutional rivalry. China is still seeking to catch up. This means that, given the Chinese interest in learning from international experience, Europe continues to have significant leverage. However, instead of expecting that China will want to adopt the European model, Europe should listen to and involve Chinese companies in the international standardisation process, and find a way to make it work for all.

China is stepping up its game in multilateral standards organisations by engaging more, increasing its presence and influence, taking on leadership positions, hosting meetings, and submitting proposals. It was noted that this does not have to be a negative development. It could be positive as long as the proposals are of sufficient quality. The discussion emphasised the importance of Europe acknowledging China's legitimate call for an enhanced say in technical standardisation, and accepting change in the light of new and important players, in order to keep the international standardisation system intact. Otherwise, there is a risk that China might consider installing new institutions or mechanisms as alternatives to established standards organisations, which would undermine existing values, institutions and processes.

In this context, the BRI is of crucial importance because its standards component provides an avenue for China to internationalise its domestic technical standards outside existing international institutions – the ISO/IEC system. Recent BRI-related developments include China signing Memorandums of Understanding, some of which reference technical standardisation and sometimes even include mutual recognition clauses, with countries along the route of the BRI. In addition, China is starting to translate an increasing number of domestic technical standards as a first step to internationalising these standards. Hence, technical standardisation should be viewed as a powerful tool in Chinese connectivity politics. One aspect of China's connectivity strategy is to link policies to existing international situations while at the same time redefining them in line with Chinese interests and values. The importance of normativity in standards was raised in the discussion, and the point was made that standards can also be seen as a broad concept that encompasses more than just technical standards.

Panel III: Technical standardisation in the field of 5G

The third and final panel of the workshop focused on the development of international technical standards for the new generation of mobile internet networks, better known as 5G. The overarching importance of 5G was emphasised, due to its potential to revolutionise industries and enable a range of new applications – from self-driving vehicles, to smart cities and artificial intelligence. It will be important for Europe to consider the implications of China's dominant position in 5G, which raises legal, economic and security concerns.

In the light of the far-reaching implications of the new generation of the mobile internet, 5G infrastructure has become a major ground for contestation, most recently between the USA and China. This is expected to be only the first example of growing state interest in digital infrastructure, which encompasses more than 5G. Political interests in digital infrastructure include security interests, concerns about technological independence, fights over "technological supremacy" and the expansion of surveillance capabilities.

The workshop made clear that Chinese tech giants, most notably Huawei, have become leading manufacturers of mobile technology infrastructure and equipment. This has been accompanied by a growing ability of China to influence technical standardisation in 5G. China is leveraging its technical expertise and first mover advantage coupled with its market size, its regular contributions to standardisation, the size of its companies, its gains made in leadership positions within technical standardisation bodies and its ability to speak with a single voice.

Telecommunications, however, is a sector that stands out in international technical standardisation. China's attempts (and those of other states) in previous generations of the mobile internet to establish distinct domestic standards or to internationalise domestic standards failed. This has resulted in a consensus on the obvious benefits of achieving unitary standards. All stakeholders, including Chinese companies, have constructively

contributed to and agreed on a single global 5G standard in the Third Generation Partnership Project (3GPP), which (alongside the International Telecommunication Union) is the global standard setting organisation for telecommunications.

The importance of IPRs and royalties was also discussed since they are crucial for companies' investments in new technologies to be worthwhile. Some countries, including the USA and China, have an interest in keeping royalties low, and patent enforcement in China is particularly difficult for non-Chinese companies.

Standardisation and regulatory work were emphasised as important European strengths, especially in digitalised sectors. The cooperative European model for standardisation as well as Europe's knowledge and record of working together should be viewed as a success and, looking ahead, as a strength to build on. There are also aspects that Europe needs to rethink regarding its overall digital infrastructure. Most notably, Europe should look at its goals and how realistic they are. Should Europe see itself as a technological leader, as an independent actor, or as autonomous? Europe should also define its values and assess how well they can be preserved and promoted.

The overall insights of the workshop can be summarised in three main themes.
- **European strengths**: Europe remains strong in the field of technical standardisation and regulatory work, as well as in a number of other aspects related to technology and connectivity (e.g. specialised SMEs, skilled workforce, FDI) that should be valued and built on further.
- **China's international headway**: China is advancing internationally, in terms of both its technological development and in technical standardisation. China is likely to face challenges in the long-term, in particular regarding its SOEs, but it will continue to be an important international player in technology and standardisation.
- **Advocating multilateralism**: Europe needs to accept the changing technological environment and involve Chinese companies in international standardisation processes. Europe cannot expect to continue to dominate the field, and must continue to promote multilateralism and the current international standardisation framework.