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ICT Standardisation Observatory and Support Facility in Europe

Case Study 3

European and Chinese standardisation investments

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Introduction

In the context of Europe and China's relationship, standardisation has emerged as a vital tool for advancing economic and geopolitical interests. This case study explores how the two regions approach standardisation governance and, by extent, drive investments in standardisation work, resulting in influence on standard-setting organisations (SSOs), and by extensions, standards. On the question of investments in standardisation, both European and Chinese companies have recognised the market advantages brought on by standard-setting leadership, particularly in newer technologies like IoT and 5G. However, do European and Chinese investments in standardisation compare, and what are the resulting implications for global influence and competition?

Europe and China: distinct governance and investment approaches

European companies, historically leaders in standardisation, have been active in both European Standardisation Organisations (ESOs) and International Standardisation Bodies (ISOs) for decades. Standardisation policy underwent significant reforms in the early 2000s, culminating in the adoption of Regulation 1025/2012, which established a comprehensive legal and organisational framework for European standardisation. This regulation reinforced the role of SMEs, consumers, and environmental groups in standard-setting and sought to improve the efficiency and inclusivity of the system.[1]

Moreover, the 2016 James Elliott Construction case, in which the European Court of Justice (ECJ) ruled that certain harmonised standards could be considered extensions of EU law.[2] This led to increased scrutiny from the European Commission, slowing down the approval process for harmonised European standards (hENs) and creating uncertainty within the industry. Moreover, prior to 2022, Europe as a whole has lacked a strategic vision for standard-setting, acting as something of a "sleeper leader" in the space. The publication of the 2022 Standardisation Strategy, and the establishment of the High-Level Forum on European Standardisation in 2023, have marked a shift in political rhetoric.

In contrast, China's late entry into the standardisation world has been marked by a much more assertive, strategic approach, one that integrated standardisation into its broader economic and foreign policy goals.[3] China has featured standardisation activities in its long-term planning agendas (Five-Year Plans) and projects like the Digital Silk Road, as well as Made in China 2025,[4] and the subsequent China Standards 2035 project. In the case of the latter, domestic policy goals play a major role – e.g. improvement of product quality and safety or structural reform of industries – but objectives related to influence in international standard-setting remain fundamental.[5]

1 Bjerkem, J., & Harbour, M. (2020). *Europe as a Global Standard-Setter: The Strategic Importance of European Standardisation*. European Policy Centre, 15 October 2020, p. 11. Available at: https://www.epc.eu/content/PDF/2020/EPE_JB_Europe_as_a_global_standard-setter.pdf

2 Case C-613/14, James Elliott Construction Limited v Irish Asphalt Limited, Judgment of the Court of Justice of the European Union (First Chamber), 27 October 2016, ECLI:EU:C:2016:821.

3 He, A. (2022). *The Digital Silk Road and China's Influence on Standard Setting*. Centre for International Governance Innovation, 4 April 2022, p. 3. Available at: https://www.cigionline.org/publications/the-digital-silk-road-and-chinas-influence-on-standard-setting/

4 Institute for Security and Development Policy (ISDP). (2018). *Made in China 2025: Backgrounder*. June 2018. Available at: https://www.isdp.eu/wp-content/uploads/2018/06/Made-in-China-Backgrounder.pdf

5 Wei, K. (2021). *China's Standards Development Strategy and Foreign Policy*. University of Tokyo, pp. 14–15. Available at: https://ifi.u-tokyo.ac.jp/en/wp-content/uploads/2021/04/ssuwp3_Wei_EN.pdf

When considering investments, it should be noted at the outset that Europe and China sport distinct approaches to standardisation governance, which in turn has direct influence on their investments.

Europe has relied on the multistakeholder model of standardisation, made up of a network of bottom-up, industry-driven fora characterised by slower decision-making and less direct state intervention. By extent, European governments traditionally have not provided direct subsidies for companies' involvement in standardisation activities. It has been the companies' prerogative to invest in these processes, based on their market needs and strategic alignment with their product development cycles. Following the dot-com crisis, previously active European players – predominantly in its telecoms sector – have decreased their investment levels, also partially due to limited government support and fragmented coordination among Member States.[6]

By contrast, China has prioritised multilateral (intergovernmental) standards governance, and has pursued a dual-track strategy of standardisation.[7] This means that on the one hand, the country has been more active in setting de jure standards in SDOs by increasing the membership of Chinese companies within the bodies, securing leadership positions, and encouraging Chinese members to vote as a bloc.[8] This has been achieved by setting standard-related Key Performance Indicators (KPIs) and national quotas, as well as granting subsidies to companies participating in ISOs and ESOs.[9]

As a result, Chinese investment extends beyond financial contributions. The country employs a coordinated strategy where government agencies, academic institutions, and private companies work together to influence global standards. Initiatives like the Digital Silk Road or the broader Belt and Road Initiative further amplify China's reach by promoting Chinese standards in partner countries, creating a network effect that strengthens its position in international bodies. China has also promoted strengthened government support for financing, credit, talent, and policy coordination and using funds to guide private capital to support standardisation work.[10] By their nature, these funding schemes often prioritise state-owned enterprises and large companies.

The New Internet Protocol (New IP) has been emblematic of this strategic prioritisation. New IP was a series of proposals concerning a novel framework for a future IP put forward by Chinese stakeholders to ITU and IETF in 2018-20.[11] The proposals met with strong pushback from other actors in the standards space[12] and were ultimately rejected, although they have continued to be circulated in a modified form across numerous SSOs.[13] Experts remain divided on how resilient international SSOs are to such influence, yet this more explicit use of standards as tools for digital sovereignty has not gone unnoticed.

Besides these de jure efforts, China has been pursuing the de facto promotion and adoption of Chinese-origin standards in other countries, "transforming the international standards system itself" with the help of its foreign policy instruments, like the Digital Silk Road.[14] These incentives seem to have paid off,

6 Insights from an expert interview .

7 Daniel R. Russel and Blake H. Berger "Stacking the Deck: China's Influence in International Technology Standards Setting" (*Asia Society*, 2021) p. 9 https://asiasociety.org/sites/default/files/2021-11/ASPI_StacktheDeckreport_final.pdf

8 Ibid. p. 18

9 Insight from an expert interview.

10 Russel, D. R., & Berger, B. H. (2021). *Stacking the Deck: China's Influence in International Technology Standards Setting*. Asia Society, p. 9. Available at: https://asiasociety.org/sites/default/files/2021-11/ASPI_StacktheDeckreport_final.pdf

11 Sharp, H., & Kolkman, O. (2020). *Discussion Paper: An Analysis of the "New IP" Proposal to the ITU-T*. Internet Society. Available at: https://www.internetsociety.org/resources/doc/2020/discussion-paper-an-analysis-of-the-new-ip-proposal-to-the-itu-t/

12 ETNO. (2020, November). *ETNO Position Paper on the New IP Proposal*. Connect Europe. Available at: https://connecteurope.org/sites/default/files/2024-09/downloads/positionpapers/etno%2520position%2520on%2520new%2520ip_short.pdf

13 Caeiro, C., et al. (2022). *Standards: The New Frontier for the Free and Open Internet*. DNS Research Federation, p. 5. Available at: https://dnsrf.org/blog/standards--the-new-frontier-for-the-free-and-open-internet/index.html

14 Jakobs, K. (2014). *The (future) role of China in ICT standardisation – A European perspective. Telecommunications Policy,* 38, 864. Available at: https://www.sciencedirect.com/science/article/abs/pii/S0308596114001293

as Chinese companies have significantly increased their presence in SDOs,[15] ultimately leading to an increase in China-origin standards which get approved.[16] However, all countries engaging in international standard-setting have "specific practices that are drawn from their domestic standardisation approach," and China is no exception.[17] The country's state-centric approach to (standard) policymaking has been transferred to the international level.[18] This has had marked effects on the functioning of organisations like ITU, which – due to their intergovernmental nature – have witnessed a large increase in Chinese presence.[19]

Challenges and recommendations

For Europe, the main challenge remains the low strategic alignment between standardisation and industrial policy, which is needed in Europe to remain competitive against China's state-coordinated approach. Moreover, the emphasis on inclusivity (via Regulation 1025/2012) and the elevated legal standing of standards (James Elliot Construction case) have further exacerbated the slow pace of the multi-stakeholder fora favoured by the EU. In order to incentivise more European companies to participate in the process, indirect financial incentives like tax deductions and the implementation of the Standardisation Strategy would be advised.[20]

China's approach has not been without its issues either. Domestically, prioritisation of state-owned enterprises has been to the detriment of smaller and potentially more innovative firms. Moreover, its overemphasis on quantitative targets – like KPIs – rather than quality and market relevance of the produced standards means that resources might not be allocated optimally.[21] These challenges translate to concerns of international SSOs, where actors express their worry over Chinese representatives abusing leadership positions, caving to government pressure in voting, and submitting low-quality proposals.[22]

15 For example, between 2011 and 2020, Chinese-occupied secretariat positions in ISO technical committees and subcommittees increased by 73%. See: de La Bruyère, E**.** (2022). *Setting the Standards: Locking in China's Technological Influence*. In *China's Digital Ambitions: A Global Strategy to Supplant the Liberal Order* (pp. 58). The National Bureau of Asian Research. Available at: https://www.nbr.org/wp-content/uploads/pdfs/publications/sr97_chinas_digital_ambitions_mar2022.pdf

16 Voo, J. (2022, March 10). *Global Impact Assessment: The Digital Silk Road and China's Technology Standards*. Asia Society. Available at: https://www.youtube.com/watch?v=CoOKbA3_t-g

17 Rühlig, T. (2021). *The Shape of Things to Come: The Race to Control Technical Standardisation* (p. 34). European Union Chamber of Commerce in China. Available at: https://eboworldwide.eu/wp-content/uploads/2023/06/The_Shape_of_Things_to_Come_English_Final966.pdf

18 Insight from an expert interview

19 Julia Voo in "Global Impact Assessment: The Digital Silk Road and China's Technology Standards" (Asia Society, 10 March 2022)

20 Insight from an expert interview

21 Insights from an expert interview

22 U.S.-China Business Council (USCBC). (2020, February). *China in International Standards Setting: USCBC Recommendations for Constructive Participation* (p. 8). Available at: https://www.uschina.org/wp-content/uploads/2025/01/china_in_international_standards_setting.pdf

Conclusion

The different approaches have had a marked effect on the functioning of international standard-setting bodies, which have witnessed a steep increase in Chinese presence and a gradual decline in European activity over the past two decades. Europe's influence has waned due to slow approval processes, fragmented investment, and declining industry engagement, while China has significantly increased its standardisation activities through strategic policies and targeted financial support.

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