Introduction: continuity and change in international standardisation

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The objective of this volume is to explore the phenomenon of international standardisation by shedding light on standard-setting processes and the development of standards in several legal orders and subject matters. The contributors bring to light an area of international rule-making that has had an increasingly important impact on the production and distribution of, and trade in, goods and services globally. The contributions chosen for inclusion in this volume critically review standardisation processes and actors in various public, private and hybrid standard-setting bodies (SSBs)\(^1\) and identify potential problematic instances in terms of openness, transparency or inclusiveness.

The idea for this volume came out of the recognition that although standards increase trade and facilitate the functioning of global supply chains, we still know little about international standardisation processes and their properties. An ever-increasing body of scholarship in economics and management touches on standard-setting processes, notably by focusing on the creation of particular standards, but legal scholarship has not paid due attention to the complex phenomena that lead to the creation of technical standards. Questions relating to institutional structures and decision-making processes are rather underexplored to date. Although theories on transnational, private-driven law abound today,\(^2\) empirical

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\(^1\) In this volume, different terms are used to identify entities that set standards. In the economics literature, such entities are typically called ‘standard-setting organisations’. For our purposes, we adopt the broader concept of ‘body’ rather than ‘organisation’. However, the terms are used interchangeably.

\(^2\) See also A. Peters, L. Koechlin, T. Förster and G.F. Zinkernagel (eds), Non-State Actors as Standard Setters (Cambridge University Press, 2009).
evidence is still scarce with respect to the mechanics of transnational standard-setting. This volume fills this gap and improves our knowledge about the peculiarities and drivers of standard-setting as a highly important area of transnational rule-making.

More specifically, this volume contributes to the international economic law literature by discussing the process of developing standards in selected issue areas; the institutional structures; the dynamics within and among SSBs; the interaction of standard-setters at the national, regional and international levels; the relationship between standard-makers (such as the International Organisation for Standardisation [ISO] and the Codex Alimentarius Commission) and standard-takers (such as the World Trade Organization [WTO]) and the effects on trade, development or innovation. The contributors were requested to reflect on and identify any common patterns in the mechanics of developing standards in the issue areas under discussion; to pinpoint particular concerns that change the dynamics (and ultimately the traits of the adopted standard) in some issue areas but not in others but also to analyse the characteristics of the new generation of standard-setters (in particular, private standard-setting in the financial, sustainable production and information and communication technology [ICT] markets).

For this volume, we have invited scholars from law, economics and management but also policy makers as well as officials of regulatory authorities and international organisations, including SSBs. Contributors were carefully selected to include both renowned experts in the field of standardisation, trade and innovation, and younger, enthusiastic scholars with a genuine willingness to delve into the peculiarities of international standard-setting, both conceptually and empirically.

The contributions included in this volume were presented at an international multidisciplinary conference on international standardisation held in Tilburg, the Netherlands, in November 2013. The event was organised on the occasion of the tenth anniversary of the Tilburg Law and Economics Center (TILEC), the largest interdisciplinary research centre of its kind in Europe, renowned for its high-quality interdisciplinary work on the governance of economic activity. Research on the mechanics of standard-setting covers a substantial part of TILEC’s research programme on trade, finance and investment for the years 2012–2017.
A. Some introductory thoughts on international standard-setting

I. Standard-setting as alternative, informal (transnational) rule-making

Increased international standardisation exemplifies achievements in technological innovation, the expansion of global trade, the interest of producers in reducing compliance costs and ensuring interoperability; and this without compromising incentives for innovation and the increased attention paid to social and sustainability issues due to the demand of consumers for better and safer products.

The conventional theory of international standardisation would be as follows: standards, no matter how well-crafted, can still impede trade. This is mainly because standards reflect preferences and values of a given society that may – and usually do – diverge, thereby inflating compliance costs for companies. If developed internationally, then substantial gains can be made through the diminution of such costs and by addressing network externalities, interoperability issues and information asymmetries. Thus, and quite inevitably, the main locus of standardisation is to be found outside national borders. With the emergence of global supply chains, the importance of international standards increases, suggesting that compatibility standards of high quality can yield substantial network effects that can make such standards self-enforcing. However, the reduction of compliance costs may be only a long-term effect; in the short run, the effect of international standards may vary in that compliance costs will rise for some firms because the new standard used may be more sophisticated. At the same time, an international standard, the theory suggests, would bring about a diminution of consumer costs as information becomes more readily available and prices more readily comparable.

The globalisation of markets and law, together with the concomitant collapse of the rigid public–private divide, are particularly apparent in and constantly transform standard-setting institutions. This is a reflection of transformations taking place domestically and affecting legal ordering beyond borders. Modern states have resolutely conceded part of their powers to other actors that can act more efficiently and swiftly not only at the domestic level but increasingly at the transnational level as well; the world of standard-setting is a straightforward reflection of this shift.

Contextually, international standardisation is part of the undisputed rise in transnational law-making as international SSBs become more private actor–driven. Such transnational regimes have often evolved in a vacuum, avoiding any frontal confrontation with state law. In the case of standard-setting at the international level, whereas there are private-driven SSBs, in practice, state-driven actors such as regulators or government-sponsored bodies may develop partnerships – be these formal or informal – with private actors to generate what can be termed ‘informal law’. Just to complicate the picture, international SSBs often compete with each other, leading to purely private constellations claiming authority through their standard-setting processes. It is not only the informal character of the actors; informality extends to the output: whereas domestic standardisation can encompass both binding and voluntary technical standards and specifications, international standardisation typically involves standards with which compliance is voluntary.

Standardisation has escaped public scrutiny for a long time mainly because of its voluntary nature. Absent any backing by a state’s coercive power, voluntary standardisation was indifferent for many. This was the case even if standards display public good characteristics in the sense that, once produced, one cannot totally limit the use of such standards. Standardisation is emblematic of the increasing complexity in defining exactly the confines of ‘law’. Standard-setters function within a continuum ‘between state and private, between norm and regulation, between

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9 W. Hesser and A. Inklaar, An Introduction to Standards and Standardisation (Beuth Verlag, 1998).
continuity and change in international standardisation

precursor and holding action. As use of standards increases, their place along any axis of these continuums also changes. Standardisation is a quasi-legal form of self-regulation and, depending on the circumstances and the legal context, it can be a form of co-regulation, or else a (hybrid) public–private partnership. Some regional standardisation bodies such as the European Committee for Standardisation (CEN) fall under the latter category.

Standardisation serves a complementary function to traditional command-and-control regulation. Therefore, non-binding, or ‘soft’, norms such as standards can act as gap-fillers for ‘harder’ forms of law. This derives from the acknowledgement that, in an increasingly complex and diversified world with an inconceivable pace of technological progress, the traditional state does not have the resources or the savvy to regulate efficiently in all areas. Modern states concede part of their powers to other actors that can act more effectively and swiftly, mainly because of their expertise, thereby allowing non-state voices to be heard and accordingly reshuffling its regulatory behaviour and supervisory role (for instance, by focusing to ex post control of a certain activity). Nowadays, ‘cooperation’ is the buzzword that embodies the philosophy of the modern state.

The advantages of cooperation and ‘soft’ forms of regulation transform states into catalysts, coordinators (‘orchestrators’) and supporters of certain activities at the national or transnational level. More often than

17 L. Senden, Soft Law in European Community Law (Hart, 2004).
19 K. Abbott and D. Snidal, ‘The Governance Triangle: Regulatory Standards Institutions and the Shadow of the State’ in W. Mattli and N. Woods (eds), The Politics of Global Regulation (Princeton University Press, 2009); but see Mattli and Seddon’s contribution in this volume (Chapter 8).
not, states are rule-takers in the area of standardisation. An underlying assumption appears to be that the voluntary character of a standard (i.e. that compliance is voluntary) will ensure that the best available technology will be adopted in the standard. In other words, the industry as a self-maximising entity will necessarily converge toward a standard that is best for it and, by implication, for society overall. In certain instances, standards acquire legal status through reference in official legal instruments, which, again, points to a peculiar, uneven relationship between the state and non-state actors involved in all stages of standard-setting.20

Again, this approach is consistent with the premises of technological rationality21 – a sort of technocratic legitimacy – and is considered the result of low sovereignty costs for governments that such delegation of power entails.22

As high levels of technical expertise are warranted, states prefer to adopt a hands-off approach vis-à-vis more specialised private parties, which have the necessary savvy to produce – sometimes complex – technical standards. This approach seems to be negatively correlated with the complexity and fast-changing nature of a given sector. In other words, the more complex a given area of standardisation is, the more likely a hands-off approach will be chosen. As a result, standard-setting consortia in highly volatile and constantly changing areas such as ICT are mushrooming. However, a deferential stance may not always constitute good politics.23 For instance, under certain circumstances, it may be worrisome if this type of soft law pre-empts hard forms of law, which may be justifiably more intrusive, seeking higher levels of protection.24

II. Standard-setting, standards battles and strategic behaviour

SSBs are important coordination devices that can lead, at least in theory, to substantial efficient outcomes. Indeed, because there are manifold

23 A. Feenberg, Questioning Technology (Routledge, 1999).
technological approaches, an SSB offers a forum where competitors and competing vested interests can resolve conflicts. Given the importance of such standardisation fora, substantial financial resources and efforts can be invested in them. The increase of standards-related patent disputes and the emergence of industry-sponsored consortia, but also actions against anticompetitive practices within SSBs such as patent hold-up or royalty stacking – all these are indicative of the significance of standardisation today. As a result, public authorities have recently renewed their attention to standard-setting practices.

In standard-setting, firms that have launched alternative technologies typically compete for inclusion in a given standard that may consolidate the best available technology. In practice, competition not only among firms but also among standard-setting groups constitutes a typical feature of private standard-setting. Standard-setting groups compete in offering the most attractive institutional setting for the development of standards. However, in many cases, strategic behaviour and market power will still not prevail over technological strength, which may be due to the dynamic process that characterises standardisation. What will many times determine the choice of forum (i.e. SSB) is whether for a given firm the possibility to dictate a standard carries more weight in its standards-related behaviour than the reputation of a given SSB – that is, whether reputation costs are lower than the benefits of dictating the standard in a second-best standard-setting scheme. This choice will essentially depend on the size of the market and the attractiveness of the technology. Thus, SSBs are important not only as coordination devices but also as certification agents.

25 See, generally, S. Greenstein and Stango (eds), Standards and Public Policy (Cambridge University Press, 2006).
27 See M. Lemley, ‘Ten Things to Do about Patent Holdup of Standards (and One Not To)’, 48:1 Boston College Law Review (2007) 149. See also Larouche and van Overwalle’s contribution to this volume (Chapter 15).
As insinuated earlier, although technological rationality and technical strength are important factors in standardisation activities, standardisation is nonetheless a highly politicised process. Many times, (voluntary) standards are the precursors of domestic (mandatory) technical regulations. Even though standards are adopted mainly through soft-law processes by non-state actors, these actors aspire to capitalise on their success and see the initially non-binding norms they champion transformed into hard law to gain rents from first mover advantages through expedited enforcement. Thus, because the stakes are high, strategic behaviour is sometimes observable. The more important standardisation becomes, the fiercer is the competition for increased influence in SSBs. Empirical evidence, although limited and rather scattered, suggests that power politics and regulatory capture may be endemic in certain SSBs. This pattern is reminiscent of the regulatory capture theory and the associated doctrine of special interest groups, extensively discussed in social sciences, which has traditionally been associated with the function of the state and public authorities.

The beneficial effects of standardisation can be undermined if, for instance, SSBs cannot resist market power or do not have the mechanisms in place that would allow taking into account important societal values. In addition, standardisation in certain fora displays high levels of path dependency whereby a typically small group of parties dominates the standardisation process and advocates for a particular, well-established method of behaving, coordinating and decision-making. This can be problematic, as it may undermine the effectiveness and inclusiveness of standard-setting processes. It can also discourage new entrants from joining these fora. Thus, despite its voluntary nature and consensus-driven decision-making, standardisation may lead to exclusion of certain economic actors and create undesirable anticompetitive effects.

III. The business model of SSBs and the WTO

The current business model in various SSBs can in fact widen the divide between those parties that have achieved high levels of technical sophistication and those that try to catch up. Alternatively, it may lead to a fragmented landscape for standard-setting in which parties that are unhappy with particular processes in SSBs adopt ‘exit strategies’ and decide to create other, competing fora or consortia in an attempt to impose their own standards. Both situations are suboptimal: they result in unduly higher costs for certain economic actors and affect future patterns in trade, development and innovation.

At the international level, whereas the principle of consensus is one of the pillars of international standardisation, this does not mean that inclusiveness and representativeness are ensured in the standard-setting processes used. Often, procedural and substantive guarantees are missing from the matrix of rules (both written and unwritten) within which SSBs function. Thus, a grey area of legality in international law is created that one cannot neglect, particularly when viewed through the lens of the objective of promoting inclusiveness in international bodies with a view to progressively shortening the development divide between developed and developing countries.

This became even clearer after the entry into force of the WTO agreement in the mid-1990s that required countries that until then had abstained from standardisation activities to use international standards when they exist, thereby transforming voluntary standards into de facto mandatory ones. In early WTO cases, international standards developed outside the WTO were used to defeat national regulatory autonomy, thereby transforming voluntary standards into quasi-mandatory ones. In this way, the WTO became a prominent ‘promoter’ of international standards, shying away from examining the very legitimacy of SSBs.

However, contemporary demands from emerging, developing economies, non-governmental organisations (NGOs) and civil society for more transparency and openness within global governance institutions are also relevant for international, largely private-driven, standard-setting. Just to corroborate the importance of this concern for transnational governance and the topicality of the subject-matter of this edited volume, a recent WTO ruling (US – Tuna II) also raises questions as to

the processes of SSBs and the ensuing properties of their standards. By the same token, public regulators started investigating more closely the functioning of SSBs with a view to ensuring equality of opportunities among the actors involved, transparency and openness. Thus, where discussions on institutional reform in SSBs are expected to emerge, a proper understanding of standardisation processes and dynamics is necessary for such discussions to be meaningful. This is so all the more if one considers that, at this level of rule-making, procedural defects will most likely have a bearing on the very substance of the final product – that is, the standard adopted.

B. Standardisation processes and their impact on development, trade and innovation

This edited volume is a multidisciplinary inquiry into the foundations of international standard-setting, an empirically under-researched yet increasingly important area of international informal law-making. Standardisation has drawn little attention in academic literature, not only because of its voluntary nature but also because of the complex institutional structures that SSBs sometimes display. Typically, such regimes have their own preferred idiom, structural bias and ethos, trying to shield their activities from external scrutiny. In addition, and admittedly, they have been quite effective in the tasks assigned to them: technological progress in recent years has been unprecedented. Nevertheless, measuring the legitimacy of a given institution based on the outcomes of its policies (output legitimacy) is merely one way of assessing legitimacy because legitimacy more broadly has multiple facets. Furthermore, a more functionalist approach, if accepted, would rather downgrade the importance of the question of legitimacy.

Regardless of the viewpoint taken, one of the starting assumptions of this volume is that the current state of the literature is insufficient to draw safe conclusions as to the mechanics of SSBs. Empirical evidence is inconclusive as to whether foreclosure, exclusion, strategic behaviour and other unfair practices are present in standard-setting processes. Therefore, a more systematic analysis of the properties of standard-setting processes and detailed mapping of case studies will allow for an informed judgment regarding the appropriateness of standard-setting processes.

39 For more details, see the contributions of Delimatis (Chapter 5) and Schepel (Chapter 9) in this volume.