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**Into the Abyss of Standard-Setting: An Analysis of
Procedural and Substantive Guarantees within the
International Organization for Standardization (ISO)**

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Abstract

Continuous innovation and a growing consumer demand for better and safer products has led to an increase of transnational technical standard-setting in recent years. The World Trade Organization (WTO) exercises a high level of deference towards international standards, requiring their use. However, practice shows that several international standards are adopted through opaque and exclusionary processes. In line with this observation, in its recent US – Tuna II ruling, the Appellate Body adopted a more critical approach regarding international standards and the processes that lead to their adoption. Against this backdrop, this paper focuses on an analysis of the properties and mechanics of international standard-setting processes within the International Organization for Standardization (ISO), discussing procedural and substantive guarantees regarding transparency, openness, deliberation and participation. As the WTO becomes the de facto arbiter of the legitimacy of international standards, much-needed institutional reform in international standard-setting is bound to occur, in line with emerging demands for a more inclusive global legal order.

Keywords

International Organization for Standardization (ISO); due process; standard-setting processes; Technical Barriers to Trade (TBT) Agreement; TBT Committee Decision on development of international standards

A. Introductory Remarks*

International standards play an increasingly conspicuous role in the WTO agreements. Already the preamble of the Agreement on Technical Barriers to Trade (TBT) commences with the – by now trivial, but not necessarily axiomatic – assumption that international standards improve efficiency of production and facilitate the conduct of international trade.¹ Therefore, they should be adhered to, for all practical purposes. The Agreement on Sanitary and Phytosanitary Measures (SPS) includes statements along similar lines. However, due to the sensitivity of public health protection as a legitimate public policy objective, the SPS is more flexible by acknowledging the right of Members to choose their level of protection which may go beyond standards adopted at the international level.²

Standards are a form of codified technical knowledge that enables the development of products and processes. They regularize and constrain behavior (regulative function); lend a taken-for-granted quality to certain technologies and *modi operandi* (cognitive function); and favor cooperative strategies over adversarial ones (normative function).³ The last function in particular can have a long-lasting beneficial effect: this is because standardization creates an infrastructure that, once created, parties have an incentive to use it, resulting in increased cooperation and enabling users to take full advantage of the network effects of standardization. Absent some form of standard-setting, technological progress would miss an important instrument for benchmarking and capitalizing on advances in the field of technology. In addition, first-mover advantages in standardization⁴ are substantial incentives for firms to innovate.⁵ In that sense, standards are constitutive of markets⁶ and a decisive instrument for economic growth.⁷

* An early version of this paper was presented at the biennial conference of the Society of International Economic Law in Berne in July 2014 and benefited from insightful comments by the participants. Financial support from Qualcomm Inc. of TILEC's work on standardisation is gratefully acknowledged. An updated draft was presented in the conference on 'Standards, Regulation and (Transatlantic) Trade Integration' in Florence in November 2014. The author would like to thank in particular Alessandra Arcuri, Axel Marx, Jens Prüfer, Petros Mavroidis, Charles Sabel, Harm Schepel, Philip Schleifer, Florian Schütt and Erik Wijkström. Any remaining errors or misconceptions are of the author's alone.

¹ G. Swann, P. Temple, and M. Shrumer, 'Standards and Trade Performance : the UK Experience', 106(438) *Economic Journal* (1996), pp. 1297-1313.

² At the same time, the SPS is more rigid than the TBT in that, contrary to the latter, it considers as international only those standards created by international organizations that are mentioned explicitly in Annex 1, that is, the Codex Alimentarius Commission, the International Office of Epizootics and the International Plant Protection Convention (the so-called 'three sister organizations'). Standards by other international organizations are not excluded, but it seems that the SPS Committee would need to approve these organizations as being 'relevant international organizations'. A first step, it seems, for such an approval is obtaining an observer status to the SPS Committee. Interestingly, the fact that there are three organizations explicitly mentioned has two effects : first, it seems that they have a privileged status vis-à-vis other observers to the Committee in their capacity as interlocutors. Second, because of their privileged status, they are much more transparent vis-a-vis the SPS with regard to their standard-setting processes, dispute settlement procedures and strategic future planning. See also WTO, SPS Committee, 'Observers in the SPS Committee – Their Role and Outstanding Requests', G/SPS/GEN/1157, 25 June 2012. In *US – Tuna II*, the Appellate Body underscored this peculiarity of the TBT vis-à-vis the SPS, suggesting that the TBT Agreement aimed 'to encourage the development of international standards also by bodies that were not already engaged in standardizing activities at the time of adoption of the TBT Agreement': See Appellate Body Report, *US – Tuna II*, para. 379.

³ C. Lane, 'The Social Regulation of Inter-Firm Relations in Britain and Germany : Market Rules, Legal Norms and Technical Standards', 21 *Cambridge Journal of Economics* (1997) 197.

⁴ Art. 1.1 of the ISO/IEC Guide 2 :2004 defines standardization as the 'activity of establishing, with regard to actual or potential problems, provisions for common and repeated use, aimed at the achievement of the optimum degree of order in a given context. Note 1 : in particular, the activity consists of the processes of formulating, issuing and implementing standards.'

⁵ Again, and more generally, if we consider standardization as infrastructure, it can promote but also hamper innovation. See also D. Acemoglu; G. Gancia; and F. Zilibotti, 'Competing engines of growth: Innovation and standardization', 147 *Journal of Economic Theory* (2012) 570.

Many times, standards, no matter how well-crafted, can impede trade. This is mainly because standards reflect preferences and values of a given populace which may – and usually do – diverge, thereby inflating compliance costs for companies.⁸ If developed internationally, then substantial gains can be made through the diminution of such costs and by addressing network externalities and information asymmetries.⁹ As a result, international standardization soon became the preferred layer of regulatory action, both government- and private-driven.¹⁰ Globalization vindicates this choice: as global supply chains become increasingly important, international standards only grow in prominence.¹¹

The costs for this seemingly irreversible shift of locus of standardization may be minimal or substantial, depending on the level of sophistication that the relevant firms display. The consumer, on the other hand, is a net winner due to this development: economic theory would suggest that an international standard reduces consumer costs, as information becomes more readily available and prices more readily comparable.¹²

The WTO, a generally reluctant international organization regarding the use of non-WTO material to assess the WTO compliance of a given Member, is more lenient when the output of international standard-setting bodies (ISSBs) is at stake. Much of previous WTO case-law, most prominently, cases like *EC – Hormones* and *EC – Sardines*,¹³ exemplify this deferential approach. In both cases, non-consensual international standards were considered as relevant benchmarks for assessing WTO compatibility of national measures. For a consensual organization such as the WTO, whereby the legacy of consensus is one of the overarching legitimating artefacts of the multilateral trading system, this is quite extraordinary.

The texts of the SPS and TBT, respectively, only partially vindicate such unconditional deference to ISSBs. More recently, in *US – Tuna II*, the Appellate Body has given signs of a more critical approach vis-à-vis non-WTO standards as relevant benchmarks for assessing compliance with WTO law. The Appellate Body ruled that no automatic and thus mechanical comparison should be made between the relevant international standard and the measure at issue. Rather, before this comparison takes place, an examination of the procedural and substantive guarantees of the standard-setter at issue is opportune. This judicial finding points to the penumbra of processes used within ISSBs. Admittedly, our knowledge about the mechanics of international standard-setting is quite limited. Hearsay about lack of representativeness and inclusiveness is not uncommon, whereas anecdotal evidence about power politics and strategic behavior exists and makes headlines from time to time. More recently, the shortcomings of international standardization processes became a central issue in the non-agricultural market access (NAMA) negotiations within the WTO.¹⁴

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⁶ H. Schepel, *The Constitution of Private Governance – Product Standards in the Regulation of Integrating Markets* (Hart Publishing, 2005).

⁷ K. Blind and A. Jungmittag, 'The Impact of Patents and Standards on Macroeconomic Growth : A Panel Approach Covering Four Countries and 12 Sectors', 29 *Journal of Productivity Analysis* (2008) 51.

⁸ R. Staiger and A. Sykes, 'International Trade, National Treatment and Domestic Regulation', 40 *Journal of Legal Studies* (2011) 149.

⁹ See WTO, *World Trade Report 2005*.

¹⁰ T. Büthe and W. Mattli, 'Setting International Standards – Technological Rationality or Primacy of Power ?', 56 *World Politics* (2003) 1; K. Tamm Hallström, *Organizing International Standardization – ISO and the IASC in Quest of Authority* (Edward Elgar, 2004).

¹¹ World Economic Forum (WEF), *The Global Enabling Trade Report 2012 – Reducing Supply Chain Barriers*, 2012.

¹² See WTO, *World Trade Report 2012*, p. 136.

¹³ Nowadays, mention is exclusively made of the European Union and no longer of the European Community, as a result of the entry of the Treaty of Lisbon into force. See Art. 1 para. 3 of the European Union Treaty.

¹⁴ WTO, *Negotiating Group on Market Access, 'Market Access for Non-Agricultural Products – International Standards in Support of Trade and Economic Development: Strengthening the Contribution of the Committee Decision'*,

Against this backdrop, a closer analysis of the properties of international standard-setting is apposite and timely. Recognition of any rule presupposes contestation, which, in turn, inevitably enquires into how standards are adopted.¹⁵ This paper attempts to take an empirical take on international standard-setting processes to identify what type of procedural and substantive guarantees are in place to ensure that international standards adopted in these fora are in line with basic tenets of due process or transparency. In this respect, procedural and substantive guarantees regarding transparency, openness, deliberation and participation in the International Organization for Standardization (ISO), the most important standard-setting body internationally, will be scrutinized. The vantage point of the paper is that attributing to international standards developed elsewhere automatic legal force in the WTO is contrary to contemporary demands for more transparency and due process within global governance institutions, more generally, and openness in international standard-setting, in particular.¹⁶ In times of increased legalization of international rule-making, a general enquiry into the necessary guarantees (or a ‘democratic minimum’)¹⁷ with which an international standard-setter would need to comply is indispensable. At this juncture, the role and influence of the WTO in these standard-setting processes as a potential drive for change will also form part of the analysis that the paper offers. Section B describes the position of international standards in the TBT by reference to the current legal framework and case-law, whereas section C presents a tentative empirical account, and subsequently a critical assessment, of standard-setting processes within ISO. Section D concludes.

B. International standards and the TBT

The multilateral trading system was initially based on a negative integration contractual approach: non-discrimination has been the overarching principle of the system and the linchpin of this approach, allowing for sufficient leeway to domestic regulatory authorities to unilaterally define the set of policies they would want to adopt. Thus, international standards and, *a fortiori*, the bodies that promulgate them, were outside the spectrum of the GATT, a situation that would resemble a tale of two solitudes paving their own, separate ways of exerting influence over commercial transactions.¹⁸

The advent of the WTO would not change much with respect to the lack of any capacity of the trading system to create technical standards itself. However, it would shift gears as to the level of integration sought regarding non-tariff barriers, with an emphasis on regulations of technical nature and measures purportedly taken to protect public health or safety.¹⁹ Both the TBT and the SPS would now clearly strive for regulatory convergence using international standards as benchmarks regarding

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TN/MA/W/141, 29 March 2011 (referring to the TBT Committee Decision relating to the development of international standards, see below, Section B).

¹⁵ See H. Schepel, ‘Rules of Recognition: A Legal Constructivist Approach to Transnational Private Regulation’ in P. Jurčys; P. Kjaer; and R. Yatsunami (eds), *Regulatory Hybridization in the Transnational Sphere* (Brill, 2013), 189, at 197.

¹⁶ Cf. A. von Bogdandy, ‘The European Lesson for International Democracy : The Significance of Articles 9-12 EU Treaty for International Organizations’, 23(2) *European Journal of International Law* (2012) 315.

¹⁷ See N. Krisch, ‘The Decay of Consent: International Law in an Age of Global Public Goods’, 108(1) *American Journal of International Law* (2014), 1.

¹⁸ It is only in the Tokyo Round in the mid-70s that the issue of technical barriers to trade and the role that international standards could play was discussed, in a first, albeit plurilateral attempt to address non-tariff barriers. See A. Sykes, *Product Standards for Internationally Integrated Goods Markets*, Brookings Institution Press, 1995.

¹⁹ See also J. Peel, ‘A GMO by Any Other Name... Might Be an SPS Risk !: Implications of Expanding the Scope of the WTO Sanitary and Phytosanitary Measures Agreement’, 17(5) *European Journal of International Law* (2007) 1009, at 1013.

the direction such convergence should take.²⁰ Standards created in ISSBs such as ISO or the Codex Alimentarius were invariably regarded as authoritative expressions of international technical consensus. They could be used as proxies that would allow properly striking the balance in any given case between protectionism-driven domestic regulations and the well-meant protection of non-economic, public policy objectives. Thus, non-WTO material, i.e. international standards, would play the role of useful heuristic devices in this new area of growing positive integration within the WTO. This introduction of non-WTO material by reference was warranted absent any standard-setting capacity by the TBT or the SPS Committees or the WTO in general.²¹

The TBT distinguishes between two types of measures: technical regulations and standards.²² The difference between the two lies on the degree of compliance: whereas for technical regulations compliance is mandatory, compliance is only voluntary in the case of standards. Still some overlap regarding the scope of the two categories is evident by reading the definitions provided for in the TBT Agreement; they both cover labeling requirements and production and process methods (PPMs). An additional difference between technical regulations and standards relates to the *source* of the measure: whereas technical regulations would typically be adopted by a governmental body and thus be a State measure, standards are typically issued by private or semi-private SSBs. Standards can become later technical regulations if adopted or used as a basis for legislative acts by the State. Recently, in *US – Tuna II*, the WTO adjudicating bodies blurred the distinction between the two types of TBT measures by arguing that a voluntary dolphin-safe labeling scheme for tuna products access to which is subject to certain criteria as to how the tuna was harvested is a technical regulation and not a standard, although access to the US market for tuna was possible.²³

Article 2.4 TBT is the key provision when examining the relation between international standards and the TBT. Pursuant to this provision, relevant international standards or relevant parts thereof (when they exist or are about to be adopted) must be used as a basis for domestic technical regulations unless they are ineffective or inappropriate means for meeting the public policy objectives sought. International standards are used as a basis when they are the principal constituent or fundamental principle for the purpose of enacting the technical regulation at stake. Furthermore, there is no restriction with respect to time: hence, international standards created *before* the entry of the TBT into force can also be relevant if the state of the art has not changed in the meantime with the adoption of a new international standard.²⁴ In other words, previously voluntary standards all of a sudden become mandatory benchmarks for domestic technical regulations. This changed forever the way international standards, particularly those created within ISO, were perceived by States; ISSBs grew in salience – but also came under States’ and scholars’ spotlight – very quickly.²⁵

Article 2.5 incorporates a presumption of TBT compatibility for those technical regulations that are in accordance with relevant international standards and pursue a legitimate objective. The rationale behind this ‘safe haven’ is that voluntary international standards incorporate international preferences

²⁰ See G. Marceau and J. Trachtman, ‘The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and The General Agreement on Tariffs and Trade: A Map of the World Trade Organization Law of Domestic Regulation of Goods’, 36(5) *Journal of World Trade* (2002) 811.

²¹ See also D. Motaal, ‘The “Multilateral Scientific Consensus” and the World Trade Organization’, 38(5) *Journal of World Trade* (2004) 855.

²² TBT Agreement, Annex 1. On the definition of technical regulation in Annex 1.1 TBT, see Appellate Body Report, *EC – Seal Products*, paras 5.8ff.

²³ See also P. Delimatsis, “‘Relevant International Standards’ and “‘Recognized Standardization Bodies’” under the TBT Agreement’ in P. Delimatsis (ed.), *The Law, Economics and Politics of International Standardisation* (Cambridge University Press, 2015, forthcoming).

²⁴ Appellate Body Report, *EC – Sardines*, para. 205.

²⁵ See also W. Higgins and K. Tamm Hallström, ‘Standardization, Globalization and Rationalities of Government’, 14(5) *Organization* (2007) 685, at 696.

and constitute artefacts of widely accepted technical superiority. In addition, Article 2.9 imposes additional notification requirements in case relevant international standards are not used. Hence, the tilt towards the use of relevant international standards is manifested in a varying manner: first, a requirement that Members use relevant international standards in a positive manner and the creation of a rebuttable presumption of consistency as an extra ‘carrot’; second, the imposition of additional burdensome conditions that Members need to abide by if they disregard international standards.

In other words, in those areas where international standards exist, they become the reference point and de facto mandatory normative technical material to be used by WTO Members. As a result, a mass of documents of at best uncertain legal normativity are transformed into international obligations equivalent to treaty text.²⁶ As noted earlier, this is even more striking if one considers the meticulous character of the analysis that typically the WTO adjudicating bodies undertake when attempting to classify particular legal texts under one of the subparagraphs of Article 31 of the Vienna Convention on the Law of Treaties (VCLT).

For such an unequivocal endorsement of legal material generated outside the WTO, the TBT Agreement is quite cryptic with respect to what constitutes a relevant international standard.²⁷ Only a generic definition of a standard is available in the TBT, which provides that it entails a

[d]ocument *approved by a recognized body*, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which *compliance is not mandatory*. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method. (Emphasis added)

Importantly, the explanatory note that follows suggests that, whereas standards adopted by the ‘international standardization community’ are based on consensus, the TBT covers also documents that are not based on consensus.

The definition of a standard in the ISO/IEC Guide 2:2004 (the update of ISO/IEC Guide 2:1991 on which the TBT is based) is, for all practical purposes, similar to the one in TBT, albeit with important nuances:

‘document, established by *consensus* and approved by a *recognized* body, that provides for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.--- Note: Standards should be based on the consolidated results of science technology and experience, and aimed at the promotion of optimum community benefits.’²⁸ (Emphasis added)

The Guide considers as international those standards that are adopted by an international standardizing/standards organization and made available to the public.²⁹ In turn, international standardizing organization is defined as the organization (that is, the body that is based in the membership of other bodies or individuals and has an *established constitution and its own administration*) whose membership is open to the relevant national body from every country.³⁰ Thus,

²⁶ See also R. Howse, ‘A New Device for Creating International Legal Normativity: The WTO Technical Barriers to Trade Agreement and “International Standards”’ in Joerges and Petersmann (eds), *Constitutionalism, Multilevel Trade Governance and International Economic Law* (Hart, 2011), 383.

²⁷ The lack of a definition of what an international standard is may also be due to the fundamental disagreement between the EU and the US as to what an international standard and an international standard-setting body stand for. This is an issue that is currently discussed in the negotiations for a Transatlantic Trade and Investment Partnership (TTIP). See CEN/CENELEC, ‘Position Paper on EU-US Transatlantic Trade and Investment Partnership (TTIP) – Technical Barriers to Trade – Initial EU Position Paper’, September 2013.

²⁸ See ISO/IEC Guide 2 : 2004, Art. 3.2.

²⁹ Echoed in the EU Regulation 1025/2012, Art. 2(1)(a).

³⁰ See ISO/IEC Guide 2 : 2004, Arts 4.3.2 and 4.2.

when examining the international nature of a standard, attention should be had on the *traits of the institution* promulgating it³¹ rather than the *very content of the standard* at issue.³²

What traits should such an institution have? The TBT definition of standard refers to ‘recognized’ standardization bodies. By the same token, Article 4.3 of the ISO/IEC Guide 2:2004 defines as standardizing those bodies which have recognized activities in standardization.³³ The TBT further defines international bodies in an open-ended manner: international body is the body or system whose membership is open to the relevant bodies of all WTO Members. In addition, however, the international body should be *recognized*. In *US – Tuna II*, the Appellate Body suggested that recognition is reserved for active standardization bodies and suggested that ‘the larger the number of countries that participate in the development of a standard, the more likely it can be said that the respective body’s activities in standardization are “recognized”’.³⁴

Thus, recognition within the meaning of Article 1.2 TBT would be a function of the degree of recognition by WTO Members (through participation), rather than the standardization community (its ‘peers’). The Appellate Body also noted that no quantitative benchmark should be in place with respect to standardization activities. Contextual analysis would be necessary whereby additional evidence with respect to the level of participation of WTO Members in the development of a given standard; wide recognition of the validity and legality of even a single standard; or adherence to the TBT Committee Decision of 2000 on principles for the development of international standards (the ‘TBT Committee Decision’) would suggest that a given body has recognized activities on international standardization.³⁵

For the first time in *US – Tuna II*, in a highly important jurisprudential turn, adherence to the TBT Committee Decision was linked to the issue whether a given standard-setting body has recognized activities. In previous WTO disputes, international standards that were adopted with limited majority were considered as relevant international standards by the WTO adjudicating bodies: In *EC – Sardines*, the relevant Codex Alimentarius standard was adopted by 18 parties out of over 150 at that time. Similarly, in *EC Hormones*, the GMO standard (an SPS standard, but still indicative of the trend within the WTO vis-à-vis international standards) was adopted with 33 votes against 29 and 7 abstentions. Both standards were adopted in a period where the GATT did not use international standards as benchmarks for GATT consistency.³⁶

However, in the aftermath of the adoption of the TBT and SPS, higher levels of scrutiny of standard-setting practices were deemed to be warranted and these disputes only served to alert WTO Members as to the possible challenges that an unqualified endorsement of standards adopted elsewhere would entail. Indeed, such jurisprudence, which in practice failed to take into account important controversies and debates in ISSBs, was sitting uncomfortably with the advocacy for more

³¹ Compare the distinction between international, European and national standard in the EU Regulation 1025/2012, Article 2(1) (a), (b) and (d).

³² See also WTO, TBT Committee, ‘Sixth Triennial Review of the Agreement on Technical Barriers to Trade: Standards’, Communication from Colombia, G/TBT/W/351, 21 March 2012, para. 8ff.

³³ In *US – Tuna II*, the Appellate Body found that the ISO definition of a standardizing body should assist in the interpretation of the TBT term ‘recognized body’.

³⁴ Appellate Body Report, *US – Tuna II*, para. 390.

³⁵ The wording used by the Appellate Body in this instance of the *US – Tuna II* report should not be taken to mean that wide participation in the adoption of a given standard or wide recognition of its validity or legality can remedy the non-adherence to the TBT Committee Decision. As explained below, adherence to the Decision becomes a prerequisite for any standard to be regarded as international for WTO/TBT purposes.

³⁶ It should be noted here that the plurilateral Tokyo Round Code on Technical Barriers to Trade (the ‘Standards Code’), which was adopted in 1979, included in its Art. 2.2 a provision similar to Art. 2.4 TBT. However, the Code was only binding to those GATT contracting parties subscribing to it, that is, 32 countries.

openness and better governance in global institutions.³⁷ As a result, in the year 2000, the TBT Committee agreed on six principles that should be observed by ISSBs when they develop international standards. It was a consensus-driven signal by the WTO that rules and procedures in ISSBs had to be strengthened. Clearly, it was an external call of reform. The principles that the TBT Committee Decision identified were: *transparency; openness; impartiality and consensus; effectiveness and relevance; coherence; and addressing the concerns of the developing world* (the so-called ‘development dimension’).³⁸

Although the EU saw its position in *EC – Sardines* and *EC Hormones* being rejected by the WTO adjudicating bodies, anecdotal evidence suggests that much of the TBT Committee Decision of 2000 was driven by the US, which came to realize that the EU was unduly dominating the domain of international standardization.³⁹ The legal value of the Decision quickly became a controversial topic. In *EC – Sardines*, the Panel found that the Decision was not binding, but a mere ‘policy statement of preference’. Thus, the fact that the Codex standard at issue was not adopted by consensus was immaterial, also in line with the TBT definition of a standard. However, the TBT Committee Decision had a substantial impact on standard-setting processes, particularly within ISO. Whereas ISO very early reacted positively to the TBT Committee Decision and alleged that it complies with the principles enshrined therein,⁴⁰ it also intensified its work with respect to ensuring due process in standards development, accommodating more intensively the concerns of developing countries or broadening the circle of stakeholder participation.

The Appellate Body was not called upon to review the Panel’s finding in *EC - Sardines*, but it was given the opportunity to pronounce itself on the issue ten years later in *US – Tuna II*. Contrary to what the Panel found in *EC – Sardines*, the Appellate Body considered the TBT Committee Decision as a ‘subsequent agreement’ within the meaning of Article 31(3)(a) VCLT, which obliges any WTO treaty interpreter to read the Decision *together* with the text of the TBT. The Appellate Body was led to this conclusion based on various elements such as the fact that it was adopted by consensus; it bears specifically upon the interpretation and application of a TBT provision; and Members’ expressed intention to: (a) develop a better understanding of international standards within the TBT; (b) ensure the effective application of the TBT; and (c) clarify and strengthen the concept of international standards.⁴¹

Indeed, agreements subsequent to the conclusion of a previous agreement aiming to specify how existing rules or obligations are to be applied (rather than to create new or extend existing obligations) can fall under Article 31(3)(a) VCLT, constituting a further authentic element of interpretation to be taken into account along with context.⁴² However, considering the TBT Committee Decision as ‘subsequent agreement’ barely squares with the *EC – Sardines* previous finding that the last sentence

³⁷ Having said this, this jurisprudence is perhaps indicative of the WTO’s reluctance to engage in a discussion as to the legality of standards developed within Codex Alimentarius. Controversy is still present as to the standard-setting practices of the Codex. See also, A. Arcuri, ‘The coproduction of the global regulatory regime for food safety standards: the SPS, Codex and the limits of technocratic ethos’ in P. Delimatsis (ed), above note 23.

³⁸ See WTO, TBT Committee, ‘Second Triennial Review of the Operation and Implementation of the Agreement on Technical Barriers to Trade, Annex 4: Decision of the Committee on Principles for the Development of International Standards, Guides and Recommendations with Relation to Articles 2, 5 and Annex 3 of the Agreement’, G/TBT/9, 13 November 2000.

³⁹ I would like to thank Amelia Porges for pointing this part of the negotiating history to me.

⁴⁰ See WTO, TBT Committee, ‘Developments within the International Organization for Standardization (ISO) that are related to the Second Triennial Review of the TBT Agreement’, Communication from ISO, G/TBT/W/158, 18 May 2001.

⁴¹ Appellate Body Report, *US – Tuna II*, paras 371-2.

⁴² Cf. Appellate Body Report, *EC – Bananas III (Article 21.5 – Ecuador II)*, para. 391; and Appellate Body Report, *US – Clove Cigarettes*, para. 265.

of the Explanatory Note in Annex 1.2 TBT also relates to international standards. If it is so, and thus consensus should not be required for a standard to be regarded as a ‘relevant *international* standard’, then the TBT Committee Decision, by requiring consensus, amounts to an *amendment* of the TBT text, at least as far as international standards are concerned.⁴³

Based on these considerations, the Appellate Body found that an invitation-only regional standard-setting body is not open to all WTO Members. It also noted that, in more generalized terms, standardization bodies must be open and transparent at every stage of developing standards in line with the TBT Committee Decision.

In sum, the TBT exerts a high level of deference towards technical rationality as expressed through international standard-setting activities *outside* the WTO. Standards developed within ISSBs acquire a prominent role at the WTO through the very text of the TBT, which requires that WTO Members use ‘relevant international standards’ and presumes compliance with the TBT when such standards are used as a basis for domestic technical regulations. It is one thing to state that the TBT Committee would be unable to develop any standards whatsoever. It is quite another to claim that certain non-WTO rules can vindicate WTO consistency as long as they are relevant to the product at issue in a WTO dispute regardless of the *process* that led to their adoption. Recall that this process is totally out of the control of the WTO.

Quite astonishingly, the TBT entails such delegation of regulatory power⁴⁴ without any inquiry as to the actual processes used throughout the development of international technical standards. This is even more surprising if one considers that such regulatory outsourcing is directed towards private actors, thereby creating an alternative to formal international law.⁴⁵ The *US – Tuna II* case seems to set the foundations for a shift towards a more critical approach that would take into account procedural and substantive safeguards within ISSBs when they elaborate international standards. This only makes sense: ISO in its capacity as the by far largest purveyor of international standards inevitably draws normativity and authority from the users of its standards, that is, traders originating in WTO Members. In other words, the WTO is the *ex post* ‘legitimator’ of international standards by default as per Article 2.4 TBT, but it can potentially be an *ex post* arbiter of their legitimacy or a third-level authoritative monitoring and enforcement device for international standardization in general.

For these reasons, gathering information about such guarantees is important. In the next section, we discuss the existing procedural and substantive guarantees in the most important ISSB in the realm of technical standards. Thus, it is ISO that we now turn.

C. Procedural and Substantive Safeguards in ISO

Standardization is emblematic of the increasing complexity in defining exactly the confines of ‘law’. It is a quasi-legal form of self-regulation and, depending on the circumstances and the legal context at hand, it can be a form of co-regulation, or else a (hybrid) public-private partnership.⁴⁶ Some regional standardization bodies such as the European Committee for Standardization (CEN) fall under the latter

⁴³ Practice in preferential trade agreements (PTAs) would also suggest that Members by now view the TBT Committee Decision as the authoritative document for identifying what an international standard is. See, among many others, the US-Australia Free Trade Agreement, Chapter 8 (TBT), Article 8.4.2.

⁴⁴ For a similar observation under the SPS, see T. Büthe, ‘The globalization of health and safety standards: delegation of regulatory authority in the SPS Agreement of 1994 establishing the World Trade Organization’, 71 *Law and Contemporary Problems* (2008) 219.

⁴⁵ E. Benvenisti, “Coalitions of the Willing” and the Evolution of Informal International Law’ in C. Callies; G. Nolte; and P.-T. Stoll (eds), “*Coalitions of the Willing*” – *Avantgarde or Threat?* (Carl Heymanns Verlag, 2007).

⁴⁶ N. Brunsson and B. Jacobsson (eds), *A World of Standards* (Oxford University Press, 2000).

category.⁴⁷ Notably with regard to the EU, it is by now generally accepted that much of the influence that the EU member States exercise within the ISSBs is attributed to the New Approach, first introduced in the mid-90s, that revolutionized the way trade was conducted at the EU level and beyond, but also the way that standard-setting at the EU level (CEN, CENELEC, ETSI) mirrored standard-setting at the international level (ISO, IEC, ITU).⁴⁸

For many decades, standardization has served a complementary function to traditional (domestic) command-and-control regulation.⁴⁹ Indeed, theory suggests that non-binding, or ‘soft’, norms such as standards act as gap-fillers for ‘harder’ forms of law.⁵⁰ Modern states concede part of their powers to other actors that can act more effectively and swiftly mainly due to their expertise, focus and smaller size, thereby allowing non-state voices to be heard and accordingly reshuffling its regulatory behavior and supervisory role (for instance, by focusing to ex post control of a certain activity).⁵¹ The advantages of non-coercive, ‘soft’ forms of regulation transform states into catalysts, coordinators and supporters of certain activities at the national or transnational level.⁵² Notably the development of global business leads to an unprecedented expansion of regulatory rules that have a variety of penholders that are typically closer to the regulated object.⁵³

This approach is consistent with the premises of technical rationality⁵⁴ - a kind of technocratic legitimacy or technocracy-based subsidiarity – and is considered as the result of low sovereignty costs for governments that such delegation of power entail, notably because much of standardization activities result in output of voluntary nature.⁵⁵ Even so, it is indicative of the ever-increasing expansion of legitimate authority outside the State.⁵⁶ However, unconditional transfer of rule-making powers does not always constitute good politics.⁵⁷ 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.⁵⁸

⁴⁷ F. Cafaggi and H. Muir Watt, *The Regulatory Function of European Private Law* (Edward Elgar, 2009).

⁴⁸ See Schepel, above note 6; see also European Commission Communication, ‘A strategic vision for European standards: Moving forward to enhance and accelerate the sustainable growth of the European economy by 2020’, COM(2011) 311 final, 1 June 2011.

⁴⁹ As Schepel puts it, ‘regulators count on [private standards], markets cannot function without them.’ See H. Schepel, ‘Constituting Private Governance Regimes: Standards Bodies in American Law’, in C. Joerges; I.-J. Sand; and G. Teubner (eds), *Transnational Governance and Constitutionalism* (Hart Publishing, 2004), at 164.

⁵⁰ L. Senden, *Soft Law in European Community Law* (Hart Publishing, 2004).

⁵¹ J. Jackson, *Sovereignty, the WTO and Changing Fundamentals of International Law* (Cambridge University Press, 2006); also H. Spruyt, *The Sovereign State and its Competitors* (Princeton University Press, 1994).

⁵² 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).

⁵³ See also D. Levi-Faur, ‘The Global Diffusion of Regulatory Capitalism’, 598 *Annals of the American Academy of Political and Social Science* (2005) 12.

⁵⁴ L. Cabral and T. Kretschmer, ‘Standards battles and public policy’ in S. Greenstein and V. Stango (eds), *Standards and Public Policy* (Cambridge University Press, 2007); also T. Loya and J. Boli, ‘World Polity: Technical Rationality over Power’ in J. Boli and G. Thomas (eds), *Constructing World Culture – International Nongovernmental Organizations since 1875* (Stanford University Press, 1999).

⁵⁵ See K. Abbott and D. Snidal, ‘Hard and Soft Law in International Governance’, 54(3) *International Organization* (2000), 421, at 441.

⁵⁶ D. Vogel, ‘Private Global Business Regulation’, 11 *Annual Review of Political Science* (2008) 261.

⁵⁷ A. Feenberg, *Questioning Technology* (Routledge, 1999).

⁵⁸ N. Roht-Arriaza, ‘“Soft Law” in a “Hybrid” Organization: The International Organization for Standardization’ in D. Shelton (ed), *Commitment and Compliance – The Role of Non-Binding Norms in the International Legal System* (Oxford University Press, 2000), p. 272.

As there are manifold technological approaches, a standard-setting body offers a forum where competitors and competing vested interests can resolve conflicts and coordination problems. Due to its importance, substantial financial resources and efforts are invested to standardization fora.⁵⁹ The increase of standards-related patent disputes, the emergence of industry-sponsored consortia, but also actions against anticompetitive practices is indicative of the growing importance of standardization particularly in high-tech areas.⁶⁰ Notwithstanding the importance of technical rationality and technical strength in standardization activities, standardization is nonetheless a highly politicized process whereby economic interests along with the quest for dominance among state and non-state actors shape its functioning.⁶¹ The more important standardization becomes, the fiercer is the competition for increased influence in SSBs.⁶² This pattern is reminiscent of the regulatory capture theory and 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.⁶³ By the same token, those involved in standards development can be captured by particular interests that seek to see a given standard develop in a manner that is advantageous to them.

Evidence suggests that power politics and regulatory capture by the big States may be endemic in international standard-setting.⁶⁴ Standardization can also be captured by the industries involved, which exploit the presence of asymmetric information and organization. An additional variable in this respect is the perennial conflict of interest that is endemic in SSBs for those subject to the standards are also those that promulgate them. Industries organize themselves more efficiently than consumers and manage to capture standard-setting institutions.⁶⁵ This can also be the result of *structural bias*:⁶⁶ for instance, ISO is a mainly non-governmental, industry-driven, international standard-setter.

More recently established SSBs such as the International Social and Environmental Accreditation and Labelling (ISEAL) Alliance claim to be more inclusive, yet even in such bodies, full membership is reserved to those presumed to have the necessary technical expertise, that is, standard-setting organizations and accreditation bodies.⁶⁷ Consumer associations or NGOs are barely involved in the actual development of the standards, but may engage more in the consultation stage later and shortly before the standard becomes final. The stakeholders involved in international standardization are of a hybrid nature and, like self-regulators, have a conflict of interest inherent in their functions: they are there to serve the interests of their constituents but also the national interest.⁶⁸ Thus, without the

⁵⁹ See also J. Farrell and T. Simcoe, 'Choosing the rules for consensus standardization', 43(2) *RAND Journal of Economics* (2012) 235.

⁶⁰ See M. Lemley, 'Ten Things to Do About Patent Holdup of Standards (and One Not to)', 48(1) *Boston College Law Review* (2007) 149.

⁶¹ J. Swinnen and T. Vandemoortele (2012), 'Trade and the Political Economy of Standards', 11(3) *World Trade Review* 390; P. Marquez, 'Standardization and Capture: The Rise of Standardization in International Industrial Regulation and Global Administrative Law', 7(3) *Global Jurist* (2007) Article 5.

⁶² S. Besen and J. Farrell, 'Choosing How to Compete: Strategies and Tactics in Standardization', 8(2) *Journal of Economic Perspectives* (1994) 117.

⁶³ G. Grossman and E. Helpman, *Special Interest Politics* (MIT Press, 2001).

⁶⁴ D. Drezner, *All Politics is Global: Explaining International Regulatory Regimes* (Princeton University Press, 2007); also J. Braithwaite and P. Drahos, *Global Business Regulation* (Cambridge University Press, 2000).

⁶⁵ R. Baldwin, 'Regulatory Protectionism, Developing Nations, and a Two-Tier World Trade System' in S. Collins and D. Rodrik (eds), *Brookings Trade Forum: 2000* (Brookings Institution Press, 2001).

⁶⁶ Cf. M. Koskenniemi, 'The Politics of International Law – 20 Years Later', 20(1) *European Journal of International Law* (2009) 7.

⁶⁷ See also N. Hachez and J. Wouters, 'A Glimpse at the Democratic Legitimacy of Private Standards: Assessing the Public Accountability of GLOBAL G.A.P.', 14 *Journal of International Economic Law* (2011) 677.

⁶⁸ See also the US Trade Agreements Act of 1979 which provides that the representation of US interests before any private international standards organization shall be carried out by the organization member.' The latter is defined as 'the private person who holds membership in a private international standards organization.' See 19 U.S.C. 2543, quoted in H.

necessary procedural guarantees in place, the beneficial effects of standardization can be undermined if standardization cannot resist market power nor has the institutional sensitivity and accommodating structures to take into account important societal values and a multiplicity of interests.⁶⁹

I. ISO

1. The (one-sided) objective of ISO

ISO was the first general international standardizing body ever created.⁷⁰ Its predecessor, the International Standards Association (ISA), a federation of the national standardizing associations, was mainly a club dominated by the continental European countries (the ‘metric bloc’). It evolved into a truly international body only after the World War II.⁷¹ ISO is not an intergovernmental organization and thus its output is deprived of any formal coercive force; rather, it is a network (or federation) of national SSBs, composed of both governmental and industry representatives. The ISO Secretariat is relatively small (138 full-time employees), serving a coordination function.

The objective of ISO and thus its normative point is to promote the development of international standards with a view to facilitating trade and to developing cooperation with respect to intellectual, scientific, technological and economic activity.⁷² Thus, collective action within ISO should be about enabling commerce to flourish and, therefore, its activity and overall assessment should be based on this normative point of collective action within ISO, that is, how to encourage market access for traders.

As it is, one cannot help but notice that ends and means within ISO are very much economic, trade-oriented and in particular producer-oriented. This is to be expected, particularly when looking at the composition of national SSBs which are members of ISO but also the very essence of international technical standard-setting: it is the producers who feed the demand for international standards to alleviate costs. Indeed, traders are the main, if not only, *demandeurs* of international technical standards with a view to expanding market access, facilitating the smooth functioning of global supply chains, increasing interoperability and decreasing compliance costs. Other considerations such as safety or consumer protection considerations, for instance, would be accounted for within national SSBs or domestic public regulatory authorities.

2. ISO Membership

ISO currently comprises 160 members involved in the development of standards, which predominantly are national standardization bodies, which in turn are of a hybrid nature, but primarily composed of representatives from the private industry, whereas government staff experts act as

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Schepel, ‘The Empire’s Drains : Sources of Legal Recognition of Private Standardization Under the TBT Agreement’ in C. Joerges and E.-U. Petersmann (eds), above note 26, 397, at 404.

⁶⁹ K. Abbott and D. Snidal, ‘International “Standards” and International Governance’, 8(3) *Journal of European Public Policy* (2001) 345.

⁷⁰ IEC, the ISSB dealing with standard-setting in the fields of electrical and electronic engineering was established about half a century before ISO, in 1906. When established, ISO largely mirrored IEC’s structure. Over the years, ISO and IEC became the twin organizations for international standard-setting, having a similar structure, common rules of procedure, joint technical committees and a common standardization grammar (the regularly revised ISO/IEC Directives, that is).

⁷¹ J. Yates and C. Murphy, ‘Coordinating International Standards: The Formation of the ISO’, 2006, available at: <http://web.mit.edu/iandeseminar/Papers/Fall2006/Yates.pdf>.

⁷² ISO Statutes, 17th edition (2013), Art. 2.1.

members in the national bodies.⁷³ Again, this varies depending on the country's (centralized or decentralized) approach to technical standards. In the US, for instance, where ANSI is a private entity, ISO standards are regarded as standards adopted by and addressed to private parties.⁷⁴ In Japan, on the other hand, it is the Japanese Industrial Standards Committee, an advisory council of the Ministry of Economy, Trade and Industry, that represents the Japanese interests to ISO. While under the auspices of the government, JISC is in reality a multi-stakeholder body. Domestic structures do seem to influence the positioning of particular national interests within ISSBs. Allegations that the EU dominates international standard-setting through its regional SSBs and a 'block-voting' approach within ISSBs have been common.⁷⁵ However, it was found that this observation most likely does not hold, or at least not to the extent argued by non-EU countries.⁷⁶

For each country, ISO accepts only one member, which is also the representative of ISO in that country. ISO has three categories of members: subscriber, correspondent and full members (or member body). Full members can be either participating (P-member) or observing members (O-member). Full membership means unrestricted rights in terms of standards development. Only full members can unconditionally participate and vote. However, full membership is highly unbalanced: Some ISO members (ABENOR of Benin) only participate in one technical committee (TC), while other ISO members such as France, Germany or the United Kingdom participate in over 700 technical bodies, including TCs, sub-committees and working or ad hoc study groups.⁷⁷ Again in these 700 bodies, the degree of participation varies: In some, the ISO member will hold the secretariat, whereas in others it is an O-member. In 2013, there were over 700 active secretariats. Germany, the US and Japan appear to be sharing the lion's share of the workload – but also, importantly, influence. Overall, Europe has traditionally been more active and this still is the case. By way of illustration, the European standard-setting bodies appear to hold about half of ISO's active secretariats in 2013.⁷⁸

Such rights are not extended to subscriber and correspondent members. Correspondent membership amounts to an observer status to ISO. Correspondent members can also sell and adopt ISO standards nationally. This category of members varies considerably as well, including countries in the process of becoming EU members (Albania) and over ten African countries. The least active category is subscriber membership (currently encompassing 4 countries), whereby the national representative standard-setter cannot participate in standard-setting within ISO. In addition, such bodies cannot sell nor adopt ISO standards at the domestic level.

In an attempt to allow for the less involved members to become acquainted with standards development processes, but also address concerns that were voiced with regard to lack of effective participation possibilities for developing countries, ISO decided to expand members' rights for the last

⁷³ See *ISO Membership Manual*, August 2013, p. I-7, available at: http://www.iso.org/iso/iso_membership_manual_2013.pdf. See also S. Bernstein and E. Hannah, 'Non-State Global Standard Setting and the WTO: Legitimacy and the Need for Regulatory Space', 11(3) *Journal of International Economic Law* (2008) 575.

⁷⁴ Cf. D. Wirth, 'The International Organization for Standardization: private voluntary standards as swords and shields', in G. van Calster and D. Prévost (eds), *Research Handbook on Environment, Health and the WTO* (Edward Elgar, 2013), 139, at 141.

⁷⁵ See ANSI, *National Standards Strategy for the United States*, 2000.

⁷⁶ See J. Witte, 'A "Single European Voice" in International Standardization? American Perceptions, European Realities', AICGS/DAAD Working Paper Series, 2003.

⁷⁷ Interestingly, seven out of the ten most active member bodies stem from the European Union. In addition, and to show the breadth of activities that ISO maintains, there were over 3'400 active technical bodies within ISO in 2013.

⁷⁸ See ISO Figures, 2013. Interestingly, nine out of the twenty current ISO Council members are European standard-setters, representing countries of the European Economic Area (EEA). The ISO Council is the highest governance body of ISO, appointing, inter alia, the fifteen members of the Technical Management Board (TMB). Out of the seven national standard-setting bodies that participate in both the TMB and the ISO Council, three are European (Germany-DIN, France-AFNOR, and UK-BSI). For the potential impact of the ISO-CEN Vienna Agreement, see infra under Section C.

two categories of membership for the year 2014-15. Only for that period, and without any additional charge, correspondent and subscriber members will be able to participate in up to five TCs; comment and vote on draft and final draft ISO standards prepared in these TCs in which they participate, as well as benefit from the ISO's 'twinning' system through partnerships with P-Members. However, they will be unable to have any committee leadership role, which, in any case, necessitates considerable savvy. From the manner that this experimental scheme is structured one can infer that ISO would expect these members to be actively involved. For instance, if they decide to take advantage of the new rights, they must participate in the TCs as P-members. O-membership is not permitted under this new scheme. This would mean, for instance, that, at the end of the standards development process, those members are obliged to vote (and thus take an informed stance) on draft standards.

In view of the high preparation costs for such a transition, the possibility of participating in the twinning scheme sounds more promising for the least emancipated ISO Members. The rationale behind the twinning system is that developing countries face many difficulties in playing a leadership role within ISO. Through partnerships with developed countries, a beneficial knowledge transfer may most likely take place.⁷⁹ An example of a rather successful twinning is the ISO 26000 on social responsibility, whereby Brazil (chair) teamed up with Sweden (Vice-chair) to lead the Working Group that was created.

II. Standard-setting process in ISO

1. The understated political element of ISO standard-setting

Standard-setting resembles law-making, for standards, like laws, are the outcome of discussion, bargaining, deliberation and compromise.⁸⁰ However, standards established by ISSBs like ISO are not law per se, but rather serve a clear regulatory function prescribing rules for others to follow.⁸¹ The standard-setting process within ISO – and, indeed, all ISSBs – is a comprehensive regulatory function that not only sets the ends to be achieved through a particular international standard or 'deliverable' but also is eloquent as to the means (technical for the most part) that should be used.

In other words, not everything about international standardization is technical; rather, international standardization has a *political* and *technical* dimension alike: The political process determines the *ends* to be pursued by materials, products, services and processes, whereas the technical dimension relates to the *means* that are most appropriate to achieve an end.⁸² While it would be reductive to suggest that all ISO members stand on equal footing as to the technical part of the standardization process, it would be equally reductive to purport that the characteristics of the political process within

⁷⁹ There are four types of twinning : between P-members ; between convenors and co-convenors ; between chairs and vice-chairs ; and between secretaries and co-secretaries. See ISO, 'Guidance on Twinning in ISO standards development activities – Increasing the participation of development activities', April 2013, p. 4

⁸⁰ Cf. B. Kingsbury, N. Krisch and R.B. Stewart, 'The Emergence of Global Administrative Law', 68 *Law and Contemporary Problems* (2005) 15.

⁸¹ See also J. Black, 'Legitimacy, accountability and polycentric regulation : dilemmas, trilemmas and organisational response' in A. Peters, L. Koechlin, T. Förster and G. Fenner Zinkernagel (eds), *Non-State Actors as Standard Setters* (Cambridge University Press, 2009), 241, at 246.

⁸² This is an observation that the EU institutions had also made when evaluating the New Approach in the late '90s. Many times, political decisions will be needed to advance certain common causes. Often, mandates and guidelines would be needed at the political level for the technical part to progress. See European Commission, 'Efficiency and Accountability in European Standardization Under the New Approach', Report from the Commission to the Council and the European Parliament, COM(1998) 291 final, 13 May 1998, para. 7.

ISO and the discussion (or lack thereof) of the ends pursued by a particular standard do not affect the authority of such standard and, ultimately, the authoritative collective action of ISO as a whole.⁸³

2. The various stages of standard-setting within ISO

Standards are prepared within TCs. However, requests for the development of a given standard can originate in one or more national member bodies, a TC, a policy development committee such as DEVCO, the ISO Secretary-General or even an organization outside ISO (for instance, another international organization). Development of a given standard is typically regarded as a stand-alone project that should be terminated in a reasonable period of time.⁸⁴ Standards can be developed in a new TC or in an existing one. TCs are established by the ISO's technical management board (TMB).⁸⁵ The TMB has fifteen member bodies appointed or elected by the ISO Council and is chaired by one of the ISO Vice-presidents.⁸⁶ The TMB is in charge of managing the TCs. Consensus is desirable pursuant to the TMB Working Procedures, but a minimum of two-thirds majority vote may be sufficient. In the case of a tie, it is the TMB chair who decides.⁸⁷ The TMB has a decisive role to play in deciding on the approval or not of project proposals relating to the future development of new standards and the allocation of work to TCs. In exercising its functions, the TMB can conduct informal exploratory enquiries to review the dynamics of a new potential project. The TMB will establish new TCs only if a 2/3 majority of the national bodies voting are in favor and at least 5 national member bodies have pledged to participate actively in the work of the TC.⁸⁸ Every TC will normally have a secretary and a Chairman. Secretariats are allocated by the TMB.

Because of the rather decentralized form of ISO, the Secretariat of a TC will be run by an ISO member body (for instance the *Association française de normalisation*-AFNOR or the American National Standards Institute-ANSI), which will appoint a Secretary and nominate a Chairman. This solution was initially opted for to bridge the gap between those national SSBs which wanted ISO to have a coordinating role and those who saw ISO as a powerful international standard-setter.⁸⁹ In theory at least, the TC Secretariat is bound to act in a purely international capacity rather than serving the national point of view.⁹⁰ Depending on the breadth of the workload, sub-committees or working groups may be created. Working groups are quite important and becoming a convener in those groups may influence the structure, content and form of the final standard. According to the ISO/IEC Directives (hereinafter 'the Directives'), the convener will normally be the project leader and will ensure that, in a given period of time, a draft standard will be available for the sub-committee's and/or the parent TC's consideration.

There are over 240 active TCs within ISO.⁹¹ As the work of a given TC is very technical, having a bird's view of developments in each and every TC is very difficult, if not highly unlikely. Typically,

⁸³ For a more extensive discussion on this particular argument, see H. Lindahl, 'ISO Standards and Authoritative Collective Action: Conceptual and Normative Issues' in P. Delimatsis (ed), above note 23.

⁸⁴ See ISO/IEC Directives Part 1, 11th edition (2014), Art. 2.1ff.

⁸⁵ Ibid, para. 1.9.1.

⁸⁶ See ISO Statutes, 17th edition (2013), Art. 9. Current TMB members are (dates of term expiry included): ABNT (Brazil-2014); AFNOR (France-2014); ANSI (USA-2015); BIS (India-2015); BSI (United Kingdom-2015); BSN (Indonesia-2014); DIN (Germany-2015); JISC (Japan-2016); KATS (Korea-2014); NEN (Netherlands-2015); SA (Australia-2016); SABS (South Africa-2014); SAC (China-2014); SNV (Switzerland-2016).

⁸⁷ TMB Working Procedures, February 2014, Art. 4.1ff.

⁸⁸ Thus, the voluntary character of international standards does not only relate to compliance with the final standard, but also to active participation in the development of such a standard.

⁸⁹ Yates and Murphy, above note 71, p. 36.

⁹⁰ See ISO/IEC Directives Part 1, Consolidated ISO Supplement (2014), Art. 1.9.2.

⁹¹ A list of TCs can be found at :

national SSBs are called upon to act as secretaries in technical committees. Secretariats are distributed unevenly, with the American National Standards Institute (ANSI) and DIN (*Deutsches Institut für Normung*, ANSI's German counterpart) maintaining a disproportionately large number of such secretariats.⁹² By way of illustration, the German and American SSBs together account for almost forty per cent of the active TC secretariats and convenorships.⁹³

There are seven 'project stages' that show the development of the technical work within a TC (table 1).

Table 1. The Stages of Standards Development within ISO

| Project stage | Associated document | |
|---|---|---------------------|
| | Name | Abbreviation |
| Preliminary stage | Preliminary work item | PWI |
| Proposal stage | New work item proposal ^a | NP |
| Preparatory stage | Working draft(s) ^a | WD |
| Committee stage | Committee draft(s) ^a | CD |
| Enquiry stage | Enquiry draft ^b | ISO/DIS IEC/CDV |
| Approval stage | final draft International Standard ^c | FDIS |
| Publication stage | International Standard | ISO, IEC or ISO/IEC |
| ^a These stages may be omitted. ^b Draft International Standard in ISO, committee draft for vote in IEC. ^c May be omitted. | | |

Preliminary work items are introduced by simple majority of the P-members.⁹⁴ This can then develop into a new work item proposal which will be approved provided that a simple majority of the P-members in the TC agree and at least 4 P-members commit to actively contribute to the project (in TCs with over 17 P-Members, at least 5 P-members should make a commitment to this respect).

In the preparatory stage, a work draft will be prepared. In this respect, the creation of a working group and the appointment of a convener may be necessary. Once a Committee draft is ready, national member bodies of the TC (both P- and O-Members) have the opportunity to submit comments and

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http://www.iso.org/iso/home/standards_development/list_of_iso_technical_committees.htm.

⁹² For the current figures, see ISO in figures 2013, available at : http://www.iso.org/iso/iso_in_figures_2013.xls .

⁹³ Ibid.

⁹⁴ See ISO/IEC Directives Part 1, 11th edition (2014), Art. 2.2.1.

consensus building on the technical content is sought. Comments should be compiled and the TC secretariat is responsible for indicating the action taken on each of the comments received. Successive drafts will be discussed in this respect until consensus among the P-members of the TC is achieved.⁹⁵ Once agreement is reached on technical issues, an enquiry draft is circulated.⁹⁶

At the enquiry stage, the draft standard is circulated to all national bodies for a 3-month vote. Importantly, this is the first time that ISO members which do not participate in the relevant TC will see the draft standard. Votes can be positive or negative – or ISO Members can inform of their abstention. Positive or negative votes can be accompanied by *technical* comments (or technical objections, respectively). A two-thirds majority of the P-member votes of the TC and the presence of not more than 25% of negative votes of all ISO members leads to the approval of the enquiry draft. In practice, approval of at least 75% of the national bodies casting a vote is striven for. Crucially, negative votes *not* accompanied by *technical* reasons do not count. This means that, in theory at least, a standard could pass this stage even in the – admittedly extreme, but still theoretically possible – case of abstention by all ISO members who are not participating in the relevant TC or in the presence of negative votes which raise non-technical concerns. This highlights the weight of P-Members' behavior participating in the TC, but also undermines the importance of the political element in the technical standard-setting process.⁹⁷

If no negative votes were received,⁹⁸ the TC can proceed to the publication of the final standard. In case the above-mentioned criteria are not met, the TC prepares a final text after incorporating the new comments and suggestions received. This final draft international standard (DIS) will be circulated to national member bodies for approval (approval stage). The same criteria for approval apply at this stage with the only difference that comments are no longer accepted in case of a positive vote. Negative votes must again state the *technical* reasons for rejecting the final draft, otherwise they do not count. If the criteria (2/3 majority of P-Members of the TC *and* no more than 25% of negative votes cast) are not met, the draft standard shall be referred back to the TC. In this case, the TC can even cancel the entire project or resubmit a modified draft which will undergo all previous stages.

Alternatively, the TC may decide to publish the draft standard as a technical specification, particularly in case of persistent opposition or doubt as to consensus. In practice, this may happen only in case of receiving negative votes that state technical objections and exceed the 25% benchmark of the total votes cast. A technical specification shall not be in conflict with an existing international standard. Later on (typically every three years), it can be reviewed with a view to being adopted as an international standard, provided that the criteria are met.

Finally, in terms of deadlines, three different tracks for the development of standards are possible: the accelerated standards development track (24 months); the default standards development track (36 months); and the enlarged standards development track (48 months). The time runs from the date of adoption as an approved work item.⁹⁹ In practice, standards development can last much longer, notably in case of controversy.

A fast-track procedure is envisaged in the Directives,¹⁰⁰ for instance, in cases of a standard developed in another ISSB that is recognized by the ISO or IEC Council. If the fast-track procedure is opted for, then the document can be submitted directly for vote as a draft international standard to the ISO members through the relevant TC or SC (enquiry stage). That document can be submitted directly

⁹⁵ As discussed *infra*, consensus within ISO does not imply unanimity, but rather 'absence of sustained opposition'.

⁹⁶ Note here that abstentions and negative votes not accompanied by exclusively technical reasons do not count.

⁹⁷ See discussion *infra*, section C.II.1.

⁹⁸ Recall that negative votes counts only if they raise technical objections: ISO/IEC Directives, Part 1 (2014), Art. 2.6.3.

⁹⁹ *Ibid.*, 2.1.6.1.

¹⁰⁰ *Ibid.*, Annex F, F.2.

as a final draft international standard if the external ISSB is recognized by the ISO Council (approval stage).¹⁰¹ The fast-track procedure can in theory reduce the time needed for a standard to be adopted, but it can also lead to certain frictions in situations where a competing standard is discussed at the same time within the ISO ‘ordinary’ standard-setting process.¹⁰²

3. Collaborative international standard-setting

ISO works in close collaboration with the IEC on all matters relating to electrotechnical standardization. Together with ITU, they have been the three sister organizations on technical standardization at the international level. While ISO and the IEC share the same set of directives, there are also directives which are specific to ISO or the IEC. In 1987, the first Joint Technical Committee (JTC 1) was created between ISO and IEC to prepare standards in the areas of ICT, including multimedia, ICT security or cloud computing.¹⁰³ Along with ISO and IEC, a third important standardization body is the ITU. These three organizations are recognized as the only *international* standardization bodies in the field of technical standards for certain WTO Members such as the EU.¹⁰⁴ In 2001, ISO, IEC and ITU established the World Standards Cooperation (WSC) ‘to strengthen and advance the voluntary and consensus-based international standard-setting systems’¹⁰⁵ that they created through the avoidance of duplication and overlap of work. The three ISSBs also cooperate in the area of patent policy by adhering to common guidelines.¹⁰⁶

III. Consensus building in ISO

Generally, ISSBs choose consensus as the decision-making mode *par excellence*, which ISO defines as ‘general agreement, characterized by the absence of *sustained opposition to substantial issues by any important part of the concerned interests* and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments.’ (Emphasis added) However, it is made clear that consensus need not imply unanimity.¹⁰⁷ In addition, the Directives consider sustained oppositions as a peculiar category of objection. They are defined as ‘views...maintained by an important part of the concerned interest and which are incompatible with the committee consensus.’¹⁰⁸ The Directives call upon the leadership of the relevant body to solve the issue based on certain guidelines such as: the leadership of the committee must ensure that the opposition is sustained by an important part of the concerned interest, which will vary depending on the dynamics of the relevant committee; if so, it should be dealt with in good faith. The right of

¹⁰¹ ISO/IEC Directives, Part 1 (2014), F.2ff.

¹⁰² See, for instance, the process that led to the adoption of the Office Open XML (OOXML) as an ISO standard (ISO/IEC 29500), overriding the effort of the proponents of Open Document Format (ODF) within ISO. In this respect, Microsoft was accused of attempting to circumvent the rules by first lobbying for the adoption of OOXML within Ecma International and then initiating the fast-track procedure taking advantage of the fact that Ecma International was an external Category A liaison body of the ISO/IEC JTC 1. Note that the JTC 1 has its own procedures for fast-track standard-setting and appeals. Notably with respect to appeals, within JTC 1, not only P-members but any member/national body can appeal against an action or inaction. See ISO/IEC Directives Part 1 – Consolidated JTC 1 Supplement 2014, Art. 5.1.2.

¹⁰³ See http://www.iso.org/iso/jtc1_home.html.

¹⁰⁴ See also EU Regulation 1025/2012 on European Standardization [2012] OJ L 316/12, Art. 2 (10).

¹⁰⁵ See <http://www.worldstandardscooperation.org/about.html>.

¹⁰⁶ See ISO/IEC Directives, Part 1 (2014), Annex I.

¹⁰⁷ Ibid, Art. 2.5.6. This definition is generally accepted as reflecting the understanding of what consensus entails in SSBs. See also the EU Regulation 1025/2012, Annex II, para 3(b).

¹⁰⁸ See ISO/IEC Directives, Part 1, Consolidated ISO Supplement – Procedures specific to ISO, fifth edition, 2014, clause 2.5.6.

opposing views to be heard is guaranteed in the Directives. However, and crucially, a sustained opposition is not akin to a right to veto. Thus, good-faith efforts are warranted, but progress of the committee work is not conditional on actual resolution of the issue.

Although unanimity is not required, most international organizations aim at consensus building and have those mechanisms in place in their constitutions and secondary law.¹⁰⁹ Consensus however can cause delays, whereby competitors argue for their preferred solution or simply hold out until one side concedes or withdraws to the benefit of the other.¹¹⁰ Endorsement of a given standard at the end of the process can generate substantial rents which make the effort worthwhile,¹¹¹ but also confirms the value of (and, in the end, legitimizes) the standard-setter as a stabilizing factor in its capacity as a coordinating authority.

In addition, it was shown that, in areas of rapid technological change and innovation and thus important rents being at stake (distributional conflicts), the standard-setting process may be slower in a consensus-based standard-setting body, but delays will be efficient when the underlying technology improves with the time. Thus, and quite importantly, at the end of the lengthy process it is likely that higher quality outcomes will be produced.¹¹² This means that, contrary to conventional belief, and somehow counter-intuitively, striving for consensus may have a very limited impact to the technical and scientific excellence of a given standard. However, when vested interests are strong, relaxing the way consensus is required or identifying a neutral participant to break deadlock (i.e. binding arbitration or appeal mechanisms) may be preferable to increase the effectiveness of a given standard.¹¹³

In practice, as explained earlier, ISO does not decide by unanimity or even consensus, but rather has adopted qualified majority voting rules in the various stages (from the preliminary stage to the enquiry draft and up to the publication stage) that lead to the adoption of an international standard.¹¹⁴ According to the Directives, within ISO, if there is doubt as to whether consensus was reached for registration as an enquiry draft (that is, the TC draft), a two-thirds majority of the actively involved members in the TC (the so-called 'P-members', as opposed to the 'O-members', which noted that they would like to have an observer status essentially within the TC) approving it would suffice.¹¹⁵

The 'two-thirds rule' of the active members and the 75% of votes cast seem to be generally applicable. Thus, rather than unanimity, these the qualified majority voting modalities should be regarded as the general benchmark expressing the multilateral scientific consensus in the international technical standardization community. In line with this observation, a final draft international standard circulated by a TC is approved if two thirds of the votes cast by the P-members in the TC (rather than of the entire ISO membership) are in favor and not more than one quarter of the total number of votes of national member bodies cast are negative. The two conditions are cumulative. Abstentions do not count and the same goes for negative votes that are not based on technical reasons.¹¹⁶ This applies to

¹⁰⁹ See J. Steffek, 'Sources of Legitimacy Beyond the State : A View from International Relations', in C. Joerges *et al*, above note 49, 81, at 94.

¹¹⁰ Farrell and Saloner first described this tactic as a 'war of attrition', suggesting that it may lead to the technically best solution, but with a significant delay. See J. Farrell and G. Saloner, 'Coordination through Committees and Markets', 19 *RAND Journal of Economics* (1988) 235.

¹¹¹ M. Rysman and T. Simcoe, 'Patents and the Performance of Voluntary Standard-Setting Organizations', 54(11) *Management Science* (2008) 1920.

¹¹² T. Simcoe, 'Standard Setting Committees : Consensus Governance for Shared Technology Platforms', 102(1) *American Economic Review* (2012) 305.

¹¹³ Farrell and Simcoe, above note 59.

¹¹⁴ See ISO/IEC Directives, Part 1 (2014), Art. 2.3ff.

¹¹⁵ *Ibid.*, Art. 2.5.6.

¹¹⁶ *Ibid.*, Art. 2.7.3.

both the enquiry stage and the approval stage. This means that objections with respect to procedural defects, for instance, would need to be raised at an early stage, i.e. at the moment that the relevant TC or subcommittee still discusses drafting. This is also made clear in the Directives of 2014, which provide that¹¹⁷

...to avoid re-discussion, national bodies have the responsibility of ensuring that their technical standpoint is established taking account of all interests concerned at national level, and that *this standpoint is made clear at an early stage of the work* rather than, for example, at the final (approval) stage. Moreover, national bodies need to recognize that substantial comments tabled at meetings are counter-productive, since no opportunity is available for other delegations to carry out the necessary consultations at home, without which rapid achievement of consensus will be difficult. (Emphasis added)

However, for this to be even possible in the first place, effective participation is a prerequisite. Effective participation would include the ability to be at all meetings, to follow several meetings simultaneously, which may be organized in different places around the world, and to find the way through a large number of technical documents in a short period of time.

IV. Other procedural and substantive guarantees

The Directives incorporate *expressis verbis* a right to appeal against decisions on new work items, committee drafts, enquiry drafts or final draft international standards within 3 months from the decision at issue. However, and quite crucially, this right to appeal is not unqualified; rather, it is reserved exclusively for P-Members. The TMB is in charge of considering such appeals. Appeals can be filed by P-Members only on condition that they are against the Statutes and Rules of Procedure, the Directives or detrimental to trade, safety, health or the environment. Appeals can relate not only to technical but also to administrative issues. However, they do not have suspensive effect, as the standards development can continue up to and including the approval stage.¹¹⁸

In addition, appeals against new work items, committee drafts, enquiry drafts or final draft international standards are accepted only if they relate to technical matters or the reputation of ISO is at stake.¹¹⁹ When it comes to issues that must be answered in the negative or the affirmative, approval by the TMB requires that at least two thirds of the total votes be positive.¹²⁰ Abstentions within the TMB are generally discouraged. If the TMB is in favor of moving forward with the appeal, a conciliation panel is established. The panel should resolve the dispute within a maximum of 6 months or refer the issue back to the TMB with its recommendations as to how the issue should be settled. The decision by the TMB can be appealed before the ISO Council Board. The decision by the latter on any appeal should be delivered within 3 months and is final.

Furthermore, the Directives provide for a fairly detailed procedure that should precede the establishment of a new TC or the adoption of a new work item notably focusing on adducing evidence to substantiate the necessity thereof. The onus in this case lies with the proposer, particularly in establishing a substantial case about the ‘market relevance of the proposal.’¹²¹ Obviously, the level of detail in such proposals will vary, depending on the availability of technical knowledge and the existence of work previously conducted within ISO or elsewhere. Annex C of the Directives includes various procedural and substantive guarantees relating to the introduction of new work items

¹¹⁷ Ibid, viii. See also Art. 2.5.1.

¹¹⁸ ISO/IEC Directives, Part 1 (2014), Art. 5.5.

¹¹⁹ Ibid., Art. 5.1.3. The provision suggests that the appeal should relate to a ‘matter of principle.’ A teleological/contextual interpretation (for instance, the privileged rights of P-members or the fact that negative votes do not count unless they are based on *technical* reasons) would suggest that this equates to technical reasons.

¹²⁰ See TMB Working Procedures (2014), Clause 4.

¹²¹ ISO/IEC Directives, Part 1 (2014), Annex C, C.3.2.

(specificity of the proposed item; relation to and impact on existing standards or work items; an indication of possible participating countries; an indication of stakeholders and so on) that aim to ensure the viability of the new work item and spell out the need for and the global relevance of a new standard in a particular area. The Directives give an indicative list of documents that can be submitted such as statements explaining the technological, economic, societal and environmental benefits of a proposed standard,¹²² but, the proposer is not bound by this list; rather, as indicated earlier, the proposer shall make first and foremost a substantial business case for the market relevance and need for a given proposed standard.

In its continuous attempt to maintain its relevance, ISO has established two policy committees to inform its standardization work. The first, the ISO Committee on developing country matters (DEVCO) was created in 1961. DEVCO currently has 101 participating and 52 observing member bodies and meets annually. DEVCO also monitors the ISO Action Plan for developing countries.¹²³ In accordance with ISO's practice, P-Members have the upper hand in the discussions and actions, whereas many African countries but also other developing and least developed countries, having the status of correspondent members within ISO, can only participate as observers (O-members) and thus have no meaningful say. These countries cannot participate, nominate experts nor be in a chair's group within the DEVCO.

The same constraints apply to another ISO policy committee, the ISO Committee on Consumer Policy (COPOLCO). COPOLCO was created in 1978 and currently has 68 participating and 56 observing member bodies. To date, COPOLCO has published 7 standards (mostly guides on how to take into account consumer issues when developing standards) under its direct responsibility (including updates of previous editions of guides). Direct links with consumers at the national level are rather weak or, for certain countries, non-existent. ISO, however, expects that consumer interests are taken into account at the level of the national standards body.¹²⁴ When consumer-related issues are important elements of the development of an international standard, national standards bodies should consider including consumer representatives in their delegation.¹²⁵ It seems that the involvement of consumers and consumer associations at the domestic level is a function of the sophistication of the national standards body.¹²⁶

Furthermore, the Directives provide for the regular review of international standards which should take place every 5 years at the latest. The review should not last more than 5 months and ends with a decision by the relevant committee to revise, confirm or withdraw the standard at issue. For confirmation, the threshold is rather low: use in at least 5 countries and positive vote by the simple majority of the P-members participating in the committee. If these members call for amendments to the standard, then the revision process is initiated. Use of the standard at issue in less than 5 countries should lead to the withdrawal of that standard.

Finally, it is worth mentioning that due to the importance of protecting intellectually property rights in standardization activities, ISO, ITU and the IEC agreed on a common patent policy in 2007 to address the problems associated with standard-essential patents (SEP).¹²⁷ Substantive guarantees for intellectual property protection include in this case the right of the patent holder to deny access to her protected right (and thus the final draft standard should not include provisions depending on the patent

¹²² Ibid, Annex C, C.4.13.3.

¹²³ See ISO Action Plan for developing Countries 2011-2015, 2010.

¹²⁴ Recently, ISO published new guidelines in this respect: See ISO, 'Guidance for national standards bodies – Engaging stakeholders and building consensus', 2010.

¹²⁵ See ISO/IEC Statement on consumer participation in standardization work, ISO/IEC/GEN 01:2001; also

¹²⁶ For some examples, see ISO, *Involving consumers – Why and how*, 2011. See also CEN/CENELEC, 'Guide 2: Consumer Interests and the preparation of European Standards', Edition 1, December 2001.

¹²⁷ See ISO/IEC Directives, Part 1, Consolidated ISO Supplement – Procedures specific to ISO, fifth edition, 2014, Annex I.

right) or to disclose her rights and then negotiate licensing and the level of royalties under fair, reasonable and non-discriminatory terms (FRAND).¹²⁸ The policy of ISSBs in principle would entail a hands-off approach: patent holders are entitled to defend their rights vis-à-vis potential users, but, due to the importance of the standard that is based on the patented input, the holders of that patent are required to negotiate agreements on the use of such patents on FRAND terms *outside* the ISSBs.

In other words, bilateral agreements or settlement are encouraged but not administered by the ISSBs. Various issues of competition law nature can be of importance in this regard, including non-disclosure of patented rights in order to extract higher royalties once the standard is adopted; prohibitive royalties which in effect limit market access; abuse of dominant position and so on. Again, these are issues that would be scrutinized by domestic competition authorities rather than the ISSBs themselves.

V. An assessment of ISO's standardization-related practices

1. ISO at the crossroads

ISO has been at the forefront of international rule-making in recent years. In view of the importance of technical standards for economic development and sustainable growth, limited participation and effective exclusion in ISO standard-setting activities have sparked debate. More recently, considerable efforts were made to increase effective participation but also expand the substantive subject-matter of the organization to include less technical areas such as those relating to the environment, labor or human rights.¹²⁹

All in all, the ISO standard-setting process seems to be quite streamlined, but various, significant issues remain. For instance, recall that 5 P-members suffice for the creation of a new TC. This would mean, at least in theory, that 3 P-members (simple majority) would be able to approve a new work item.¹³⁰ Again, as noted above, a minimum of 4 P-members would be needed to commit that they will participate actively in the preparation of the new standard. Even so, in an organization of over 160 member bodies, this is too low a threshold. In addition, note that a 2/3 majority (following our example, that is, 3 out of the 4 P-members!) would suffice to bring forward the draft standard as an enquiry draft. This would mean that, in theory, 3 P-members could lead the entire process up to the enquiry stage.

In practice, crucially, all ISO members (that is, not only the relevant TC members) will see the draft standard for the first time at the enquiry stage. At that moment they merely have three months to raise *technical* objections and seek changes. First, and in view of the low threshold applied, it is questionable why comments should be limited to the technical aspects of the standard. Procedural deficiencies should be allowed to be raised by the membership at this level as well, all the more because these could not be raised earlier. With so many committees working simultaneously on a broad array of topics, one would reasonably assume that many members would become familiar with a particular standard proposed for the first time during this 3-month period of voting. Depending on the complexity of the technical content involved, while for some ISO members the time may be sufficient, for others (who lack a high level of sophistication in technical matters) three months would rather be a short period of time to be acquainted with complex technical matters. Acquisition of technical information in such a short period of time becomes so costly that members prefer not to seek acquiring

¹²⁸ See, generally, P. D. Curran, 'Standard-Setting Organizations: Patents, Price Fixing, and Per Se Legality', 70 *The University of Chicago Law Review* (2003) 983, 991ff.

¹²⁹ See, more recently, the ISO 26000: Cf. S. Bijlmakers and G. van Calster, 'You'd be surprised how much it costs to look this cheap! A Case-Study of ISO 26000 on Social Responsibility', in Delimatsis (ed.), above note 23.

¹³⁰ *Ibid*, Art. 1.5.7 in conjunction with Art. 2.3.5.

such the necessary information at all. If members know that their vote will not influence the final decision, they will not invest in information.¹³¹

One could argue here, that even at that stage, ISO members could still express their disagreement and thus avoid the adoption of a manifestly technically shaky standard. In addition, P-members which participated in the TC work have a strong incentive to prepare a first-rate enquiry draft to compensate for the high start-up costs, but also because the more time they invest on preparing such a draft the higher their interest is for such a draft to be of high quality so that it is accepted more easily. In addition, information that flows too early or perhaps allowing voting at a very early stage may jeopardize the entire standard-setting process by making it overly political.¹³² Thus, from this point of view, allowing any objections to be raised for the first time at the enquiry stage does not constitute any serious prejudice on the non-participating ISO members in the TC. This may also be in line with the spirit of ISO voting: ISO does not introduce a general decision-making system, but a de facto supermajority system whereby votes presuppose information acquisition. It is contestation on the technical grounds that can improve a given standard – and such contestation can even occur at the enquiry stage.

Both views presented here have their value and are sensible. However, even if the latter view is correct, no plausible reason seems to exist that would prevent TC members from sharing information with all ISO members about work on a new standard early on. For instance, while the committee draft stage seems to be quite important and various procedural guarantees are in place (for instance, prompt notification; notice and comment procedures; requirement to respond to all comments; revisions to be subsequently circulated), this stage is limited to the ISO members participating in the relevant committee. Whereas the committee draft stage appears to play a crucial role in line with the core principles of due process, the Directives suggest that, under certain circumstances, this important stage can be skipped if consensus (as defined within ISO) among the P-members is achieved.¹³³

A notification requirement towards all ISO members would constitute a procedural guarantee with immediate positive impact on the substantive rights of other ISO members. Such information, for instance, could be publicly available on the ISO website with a short, expedited notification/alert system. At extreme cases of opposition within a TC, early (perhaps indicative) voting could act as an alternative buffer that allows certain standards to move forward, provided that the broader ISO membership supports them *despite* opposition within the TC. Finally, objections should be allowed to be raised – and thus appeal procedures should allow for that – if any ISO member can prove serious prejudice to its rights.

Significant path dependencies remain within ISO, as the previous analysis demonstrated, alluding sometimes to the need for a shift in ISO's *modus operandi*: for one, the political dimension of ISO standard-setting appears not to be yet of immediate concern for the ISO leadership. This becomes obvious when we look at the imbalances between the rights of P-members, on one hand, and the other ISO members, on the other; the late notification of draft standards to all ISO members (enquiry drafts); the lack of any weight being given to negative votes which are not based on technical considerations; or, again, the limited possibilities for appeals which are not premised on technical grounds. Whereas the requirement for giving reasons is generally of a due process nature and aims at limiting arbitrary objections and delays, the non-participating ISO members in the relevant TC would more often than not ignore basic technical features of a particular standard that is presented to them as an inquiry draft.

¹³¹ See also Nicola Persico, 'Committee Design with Endogenous Information', 71 *Review of Economic Studies* (2004) 165.

¹³² Stasavage found that transparent procedures may lead certain agents to posture by taking uncompromising positions that may lead to deadlock. See D. Stasavage, 'Open-Door or Closed-Door? Transparency in Domestic and International Bargaining', 58 *International Organization* (2004) 667.

¹³³ See ISO/IEC Directives, Part 1, Consolidated ISO Supplement – Procedures specific to ISO, fifth edition, 2014, Annex SS.

Those participating actively (P-members), on the other hand, would have the necessary information. This asymmetry of information seems to be too late to remedy at the enquiry stage and appears to accentuate the gap between the more sophisticated – technically speaking – ISO members, and those which struggle to build capacity. The latter (admittedly, less informed members), when facing an enquiry draft would prefer to abstain¹³⁴ or even cast a positive vote,¹³⁵ which nevertheless is not necessarily based on a full grasp of what the standard stands for. Thus, the requirement for giving technical reasons appears to function as a presumption of fitness for purpose of the enquiry draft. This presumption is rebuttable, but obviously not many ISO members will have the capacities and knowledge to rebut effectively.

This excessive focus on the technical aspects of standardization and late notification of proposed draft standards may lead to undue dominance of certain ISO members – most likely the sophisticated ones. This approach offers little in the effort to establish more inclusive forms of governance at the international level. This situation may perpetuate even at the *post*-adoption stage: at the moment of review of a given standard, the use of a given standard by just 5 countries would be sufficient for a standard to be regarded as an international standard of global relevance for ISO purposes. Other than the practice of exclusion that such a low threshold implies, it is also indicative of generally low thresholds that are set by the Directives with respect to key aspects of standard-setting, as mentioned earlier.

Active participation is one of the ISO principles according to the ISO Code of Conduct for the technical work.¹³⁶ This justifies the privileged status that P-members enjoy within ISO – a kind of reward for their willingness to invest in promoting standard-setting (e.g. through active participation in the early stages of new work items; the running of secretariats, convenorships or other leadership positions; or the posting of technical comments). This, however, neglects at the same time that standard-setting is inextricably linked with learning-by-doing: effective participation on a broader basis will never occur without capacity-building. This is the reason why the system of twinnings is a noteworthy initiative that may change – even if only at a slow pace – the ecology of international technical standard-setting, just as regional standard-setting initiatives in the developing world. The case of the EU is telling, in this respect. It is by now accepted that the empowerment of CEN and CENELEC through the New Approach within the EU also had beneficial effects for the weight of the EU's bargaining power within ISSBs.

Participation in standard-setting is not only a matter of states, but very much of non-state actors, including industry, consumer or labor associations, NGOs or other private interest groups. ISO claims to carry out its work in an 'international, multi-stakeholder, multi-sector environment.'¹³⁷ Nevertheless, in principle, ISO would encourage its members to involve stakeholder interests at the *national* level, which then would have to be taken into account when preparing the national position of the representative SSB at ISO. With respect to consumer interests, COPOLCO has been active in addressing consumer-related aspects of standards by publishing guides instead of ordinary ISO

¹³⁴ In that case, because voting becomes costly for the uninformed voters (the price for acquiring information, they prefer to delegate their votes to the informed ones. See T. Feddersen and W. Pesendorfer, 'The Swing Voter's Curse', 86(3) *American Economic Review* (1996) 408.

¹³⁵ For instance, they may cast a positive vote if they believe that the promoters of the standard would not jeopardize their reputation to bring forward for voting a standard of dubious quality. Compare G. Levy, 'Decision Making in Committees: Transparency, Reputation, and Voting Rules', 97(1) *American Economic Review* (2007) 150.

¹³⁶ The *ISO Code of Conduct for the technical work*, 24 July 2011, available at: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CB8QFjAA&url=http%3A%2F%2Fwww.iso.org%2Fiso%2Fcodes_of_conduct.pdf&ei=zBMYVNHxC86UatGdgiA&usg=AFQjCNGdNeV_d-SiCY0x_JP429XEWJcJg&sig2=Kk6GAiMTaWZruTmJ9C7Z3w&bvm=bv.75097201,d.d2s.

¹³⁷ Ibid.

standards. COPOLCO works under the ISO general Secretariat's responsibility, which appears difficult to square with the member-driven tradition of ISO.

In the face of increasing criticism, ISO has attempted to open up its doors to consumers directly. For instance, Consumers International, a global federation of consumer organizations from over 110 countries, has established a liaison with COPOLCO. The relationship, however, is rather asymmetrical, with P-Members still leading the discussions and ensuing decisions within COPOLCO. This approach becomes increasingly untenable: whereas, as noted earlier, producers used to be the only *demandeurs* of international standards, nowadays consumers also seek the adoption of international standards. Increasing labor mobility and cross-border safety concerns due to defective products can indeed lead to more pro-active advocacy on the side of consumers at the international level. Thus, not only producers, but also consumers have a substantial interest. The same goes for labor organizations in certain areas of ISO standard-setting such as management and production systems. Needless to say, questions of legitimacy, representation, participation and accountability can equally be raised with respect to consumer and labor organizations pointing to the need for benchmarking and potential reforms. In an era of increased legalization of rule-making at the international level, no actor active at this level is immune from such scrutiny.

In addition, the expansion of the ISO agenda may lead to awkward results in view of the upgrade that the ISO output has experienced after the adoption of the TBT agreement. This became particularly apparent in the negotiations that led to the promulgation of the ISO 26000 guidance document. Although generally regarded as an international standard for ISO purposes, the document clarifies that it must not be considered as such for the purposes of the TBT agreement. Nor is it intended to provide a basis for any assumption or finding that a measure is consistent with WTO obligations, thereby discrediting the value of Article 2.4 TBT when assessing this particular ISO deliverable. As noted in the relevant literature, this exercise of self-restraint vis-à-vis the TBT agreement by ISO was the result of intense negotiations to limit the scope of the final product within the multi-stakeholder working group on social responsibility and constitutes a first.¹³⁸ However, one wonders whether this is the price to pay for a more open approach on standard-setting and if so, what repercussions it may have on the relationship between ISO and WTO if such an approach spills over beyond guidance documents.

Experimenting with new forms of standard-setting such as multi-stakeholder standardization may be a time-consuming endeavor, as it brings with it new *ethos* in the discussions, and thus takes traditional standard-setters – that focus predominantly on the technical aspects of the deliverables – out of their comfort zone. As the negotiations on the ISO 26000 showed, learning-by-doing has its consequences: it took about six years to finalize the guidance document, which is of a softer nature than a traditional ISO standard, as it cannot be used for third-party certification.

Even so, the ISO 26000, with its 'alternative production line' model, is a worthwhile standard-setting effort in view of the interests that were gathered to shape it: Experts from more than 90 countries and 40 international or broadly-based regional organizations representing governments, NGOs, consumer associations, industry and so on came together to agree on a single guidance document.¹³⁹ For ISO, this exercise is not only a matter of substance and scope, but also a matter of *continuing relevance*: with ever-increasing competition coming from ISEAL alliance, globalG.A.P. and other newcomers in the standard-setting market and with much focus shifting towards sustainability of production methods and global supply chains, ISO cannot simply disregard these voices. It must expand its agenda and, by implication, the interests represented at the standard-setting

¹³⁸ Calster and Bijlmakers, above note 129.

¹³⁹ Participation, however, has been unequally distributed, with industry and governments together appointing about half of the experts in the Working Group. See also B. Slob and G. Oonk, 'The ISO Working Group on Social Responsibility: Developing the future ISO SR 26000 Standard', SOMO Briefing Paper, March 2007, p. 2.

table in view of its dominant position in this areas of transnational rule-making.¹⁴⁰ Voices that are not allowed to be heard within ISO will most likely default if they see that chances of being heard are low. In such cases, they will look for other opportunities to fill what they perceive as a *lacuna* in international standard-setting matters.¹⁴¹

3. Reviewing ISO practices against the principles of the TBT Committee Decision

Respect of the TBT principles on the development of international standards may have the same result. Interestingly, the ISO Code of Conduct follows reverently the six TBT principles, which are upgraded to become by now ‘the key principles of international standardization’:¹⁴² consensus; transparency; openness; impartiality; effectiveness; relevance; coherence and the ‘development dimension’ (that is, as noted earlier, the requirement to address the concerns of developing countries) figure prominently in the ISO’s Code of Conduct. Thus, not only are the TBT principles endorsed by ISO; they have rather become guiding principles for its technical work.¹⁴³ This means that no proper interpretation of these principles can take place without reference to the initial source document of these principles, which is the TBT Committee Decision.¹⁴⁴ In other words, these principles do not have an ISO-specific meaning, but rather a WTO meaning, as elaborated in the TBT Committee Decision of 2000, subsequent meetings of the TBT Committee (e.g., the triennial reviews of the TBT Agreement) and as spelled out in the Panel and Appellate Body rulings such as the *US – Tuna II* ruling or future WTO disputes on TBT matters.¹⁴⁵ The successful achievement of the trade-enabling objectives of the TBT agreement does pass through the development of international standards, which in turn raises the bar as to due process expectations within ISSBs.¹⁴⁶

With respect to the first two principles, the Decision is indicative of WTO Members’ intent to ensure that the development of international standards take place transparently and through wide participation. On transparency, the TBT Committee Decision requires that adequate time and opportunities are provided for written comments. In addition, the Decision appears to require dissemination of relevant information to *all* members of the standard-setting body early in the standard-setting process, much earlier than the current ISO procedures would provide. On transparency, there seems to be room for major improvements. In the first reaction by ISO to the TBT Committee Decision, ISO turned a deaf ear to the requirement of transparency as enunciated in the Decision. It recalled its decentralized nature to claim that it is for ISO member bodies to inform

¹⁴⁰ See R. Stewart, ‘Remedying Disregard in Global Regulatory Governance: Accountability, Participation, and Responsiveness’, 108(2) *American Journal of International Law* (2014), 211.

¹⁴¹ A. Hirschman, *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States* (Harvard University Press, 1970).

¹⁴² ISO Code of Conduct, above note 136.

¹⁴³ Note that ISO has an observer status at the TBT Committee and regularly informs the Committee of its activities and plans.

¹⁴⁴ See above note 38.

¹⁴⁵ The TBT Committee Decision appears to reflect WTO Members’ prevailing normative view as to standards development. In the current NAMA negotiations, the Decision has informed Members’ positions regarding the definition of international standards and the traits of ISSBs. See WTO, Negotiating Group on Market Access, ‘Market Access for Non-Agricultural Products – International Standardisation’, Communication from the European Union, India, Indonesia, Norway, Philippines, Switzerland and Thailand, TN/MA/W/142, 13 April 2011.

¹⁴⁶ See also Appellate Body Report, *US – Tuna II*, fn 745 (‘WTO Members see representative participation and the observance of due process in the development of international standards as essential to the achievement of the trade facilitating objectives of the TBT Agreement.’).

domestic constituents,¹⁴⁷ thereby neglecting the importance of *direct* communication and information channels that should be in place in view of the normative power that ISO has gained in the last two decades and the increasingly prominent role that it plays in international economic governance as a key trade-enabling institution.

Admittedly, ISO's move towards a more assertive role in international matters is slow. To date, ISO's approach vis-à-vis transparency (but also participation) seems to be based on the publication of guides addressed to the national standard-setting bodies calling for more effective communication channels and dissemination of ISO's work at the national level as well as for the adoption of an inclusive, multi-stakeholder philosophy when establishing the national stance on a given subject discussed within ISO.

With respect to openness, the Decision requires the existence of meaningful opportunities for participation at all stages of standards development.¹⁴⁸ According to ISO, it is for ISO members to assess their technical capacity and accordingly decide their membership status (O-, P-, subscriber or correspondent membership). While ISO is probably right to argue that 'it is neither effective nor efficient to have all developing countries participate in all standard-setting activities at the international level',¹⁴⁹ there is a clear imbalance in the distribution of technical work and leadership tasks within ISO, which obviously mirrors decades of know-how acquisition on the side of developed countries. While it is indeed sensible to encourage developing countries to organize themselves at the regional level hoping for better representation at the ISO level, schemes and mechanisms that would offer direct access to ISO standardization activities are necessary. Again, the mechanism of twinning can only be considered as a necessary, but insufficient instrument towards more effective participation mechanisms. In addition, effective participation implies a significantly costly endeavor: absent financial means directed towards more regular participation by a broad ISO membership base, much of the work within TCs is dominated by industry-driven developed-country interests which have the necessary financial means to hold convenorships or TCs.¹⁵⁰ Such transnational corporate domination¹⁵¹ of the process of drafting standards may be worrisome in various respects, not only in terms of fairness and participation, but, more fundamentally, of legitimacy.

The Decision further clarifies the importance of impartiality and consensus-building in ISSBs. Whereas it underlines the importance of meaningful opportunities to contribute to the elaboration of an international standard so that the entire process does not tilt towards the preferences of the few, it is more accommodating with respect to consensus, acknowledging indirectly that a decision-making system that takes into account the views of all parties concerned and seeks to reconcile conflicting arguments can meet the requirement enshrined in the Decision. Thus, the ISO's double consensus (as noted earlier, two-thirds rule within the TC and 75% of the votes cast) seems to meet the requirement of consensus within the Decision. Recently, it was proposed that ISSBs follow the WTO consensus rule (a negative vote would amount to a veto right) or increase the threshold for adoption.¹⁵² ISO was not in favor of changing a decision-making system whereby objections were a rare phenomenon. Within the WTO, the idea of raising the threshold does not seem to gather sufficient support, all the more because the underlying rationale is everything but clear. Rather, WTO Members seem to agree

¹⁴⁷ See ISO/IEC Directives, Part 1 (2014), Art. 1.7.1.; also WTO, TBT Committee, above note 40, para. 6. After more than ten years, ISO's approach on the matter remained unchanged: See WTO, TBT Committee, 'ISO and IEC Comments on India's Submission on International Standard (IS) Setting', G/TBT/GEN/129, 2 April 2012, para. 5.

¹⁴⁸ See also Appellate Body Report, *US – Tuna II*, paras 369ff.

¹⁴⁹ Above note 138, para. 6.

¹⁵⁰ See also Roht-Arriaza, above note 58, at 267.

¹⁵¹ *Ibid.*, 267.

¹⁵² India suggested that this threshold cannot be lower than 90%. See WTO, TBT Committee, 'Principles of International Standard Setting', G/TBT/W/345, 10 November 2011, p. 2.

that in essence it is about arguments rather than votes, which would render redundant the setting of minimum benchmarks for consensus.¹⁵³

Effectiveness and relevance is the fourth principle set out in the Decision, which requires that ISSBs: (i) take into account relevant regulatory or market needs, and scientific and technological developments in the elaboration of standards; (ii) put in place procedures aimed at identifying and reviewing standards that have become obsolete, inappropriate or ineffective; and establish or maintain communication channels with the WTO. Regarding market relevance vis-à-vis a specific work item, the Directives include an important set of substantive guarantees to ensure the market relevance of new proposals for standards development. As mentioned earlier, the burden of proof lies with the P-member that proposes new work. The ISO TMB has established a global relevance policy as early as in 2003, worried that its relevance for TBT purposes may be questioned. Interestingly, the Directives suggest that the adoption of the TBT ‘placed an *obligation* on ISO to ensure that the International Standards [sic] it develops, adopts and publishes are globally relevant.’ (Emphasis added)¹⁵⁴ The TMB understands what is at stake: A standard failing to meet the requirements of the TBT Committee Decision may be challenged as creating a barrier to trade.

Global relevance is defined within ISO as ‘the required characteristic of an International Standard that it can be used/implemented as broadly as possible by affected industries and other stakeholders in markets around the world’.¹⁵⁵ As the intent is to capture and accommodate market dynamics through ISO standard-setting, regional or national differences would not normally be taken further unless they are essential (e.g., related to climate differences, anthropometry or embedded technological infrastructures) and thus are typically not subject to change and adaptation. Where such concerns are present, the ISO approach on introducing a unique international solution through standard-setting would not hold; rather, these concerns would need to be addressed. Again, within ISO, it is for the TC, and more specifically, the P-Members, to examine and confirm the global relevance of a given (new) work item and raise any essential differences that should be included in the standards. The latter should be presented to the other P-members of the relevant TC for approval as early as possible and at the latest at the Committee draft stage.¹⁵⁶ Provided that essential differences form eventually part of the draft international standard, negative votes cannot be premised solely on the fact of such an inclusion.

As noted earlier, there do not seem to be any compelling reasons limiting to P-members the right of raising essential differences. Furthermore, there is no review mechanism as regards the approval (or not) of such requests within a given TC (other than the general appeal mechanism within ISO, the use of which is, again, largely limited to P-members). The TMB does not seem to play any immediate role here as a more neutral control mechanism.¹⁵⁷ Indeed, depending on the dynamics within a TC, undermining the importance of essential differences raised may be the prevailing stance: intuitively, most P-members would have no incentive to create loopholes within a given standard. Increased

¹⁵³ See the discussion within the TBT Committee in WTO, TBT Committee, Minutes of the meeting of 10-11 November 2011, G/TBT/M/55, 9 February 2012, para. 285ff.

¹⁵⁴ ISO/IEC Directives, Part 1, Consolidated ISO Supplement – Procedures specific to ISO, fifth edition, 2014, Annex SM, SM.1. The Annex reproduces the document on *ISO/TMB Policy and Principles Statement – Global Relevance of ISO Technical Work and Publications*. It reiterates the list of substantive criteria that determine the global relevance of a given standard to be found in the TBT Committee Decision (effectively respond to regulatory and market needs; respond to scientific and technical developments in various countries; not hinder fair competition or innovation; and be performance-based).

¹⁵⁵ *Ibid.*, SM.2.

¹⁵⁶ See *ISO/TMB Implementation Guidance – Global Relevance of ISO Technical Work and Publications*.

¹⁵⁷ *Ibid.* The document suggests that, in case of doubt and absent a resolution of the concern at the TC level, the TMB may be asked to review the details to provide advice/direction to the relevant TC. However, this is an *informal*, conciliatory role that the TMB may play with no reference as to when and how the TMB will indeed intervene.

compliance costs or delays in finalizing the Committee draft may be some of the reasons that would justify such an opposition by P-members within a TC.

At the post-adoption stage, ISO includes a review mechanism of standards and technical specifications. However, a systematic impact assessment instrument does not form part of the ISO standard-setting system. Nor is such a requirement imposed by the TBT Committee Decision. However, the possibility of including such a requirement was proposed as a useful tool to ensure the continuous relevance and efficacy of a given standard.¹⁵⁸ For instance, competing SSBs such as the ISEAL Alliance adopted an Impacts Code that requires the assessment of repercussions at various fields both during the drafting and after the adoption of ISEAL sustainability standards.

The fifth principle of the Decision is coherence, which, pursuant to the Decision, points to the need for cooperation and coordination with other relevant ISSBs to avoid duplication or overlap. Thus, the concept of coherence does not refer here to the standards and standard-setting processes within a *single* ISSB, but rather the appropriate relationship among institutions with similar functions. ISO has such mechanisms in place, at least with respect to IEC at the international level,¹⁵⁹ but also CEN at the regional level.¹⁶⁰ The Vienna Agreement and the subsequently adopted guidelines are monitored by the Joint Co-ordination group of the TMB and the CEN Technical Board (CEN/BT) and entail two options for collaborative standard-setting: the ISO lead and the CEN lead. Thus, while recognizing the primacy of international standards, this cooperation agreement results in the CEN becoming a decentralized agent (and preferred strategic partner) for the development of new standards. The Guidelines provide that, if the expected results are not achieved, ISO or CEN can proceed separately in the development of standards. In addition, when the CEN lead is opted for (and for this a simple majority of the non-CEN P-Members of the ISO TC is required), CEN should ensure the due process rights of non-CEN ISO members (for instance, adequately respond to their comments). Under certain circumstances, and regardless of whether ISO or CEN were the lead organization, a decision may be reached to approve a given standard within ISO and CEN in parallel.

Addressing the concerns of developing countries is the last principle that the Decision identifies, recognizing the challenges for effective participation in international standard-setting that these countries have diachronically faced. Notably, the Decision requires that ‘tangible’ ways of effective participation of developing countries must be sought. However, arguably in line with the soft, hortatory for the most part, language that is used in the WTO provisions relating to special and differential treatment for developing countries, the Decision defines this requirement in a negative manner in that it requires no *de facto* exclusion from the standardization processes within the relevant ISSB.

As noted earlier, ISO has developed an action plan for developing countries for the period 2011-2015, succeeding the triennial programs adopted in the previous decade.¹⁶¹ DEVCO monitors the proper execution of the action plan. The current action plan entails a more targeted approach with 6

¹⁵⁸ See above note 152, p. 3.

¹⁵⁹ Annex B of the ISO/IEC Directives suggests that ISO and IEC together form a system for international standardization as a whole. Indeed, these two ISSBs account for about 85% of international product standards. See T. Büthe, ‘Engineering Uncontestedness? The Origins and Institutional Development of the International Electrotechnical Commission (IEC)’ 12:3 *Business and Politics* (2010) Art.4, p. 5. Annex B describes precisely how work is allocated and liaison works between the two institutions. For the most sensitive, unresolved questions of coordination and work allocation the ISO/IEC Joint Technical Advisory Board may be consulted.

¹⁶⁰ See The Agreement on Technical Cooperation between ISO and CEN (Vienna Agreement), 1991, available at: [http://isotc.iso.org/livelink/livelink/fetch/2000/2122/3146825/4229629/4230450/4230458/01__Agreement_on_Technical_Cooperation_between_ISO_and_CEN_\(Vienna_Agreement\).pdf?nodeid=4230688&vernum=-2](http://isotc.iso.org/livelink/livelink/fetch/2000/2122/3146825/4229629/4230450/4230458/01__Agreement_on_Technical_Cooperation_between_ISO_and_CEN_(Vienna_Agreement).pdf?nodeid=4230688&vernum=-2). This Agreement becomes operational through the *Guidelines for the implementation of the Agreement on Technical Cooperation between ISO and CEN* (the Vienna Agreement), 6th edition, January 2014.

¹⁶¹ The execution of the action plan is one of the seven key priorities of the ISO Strategic Plan 2011-2015.

output areas, including increased participation in the technical work. Even if the structure of DEVCO may not be the most adequate one for accommodating developing country concerns,¹⁶² the approach that the action plan takes appears eventually to be the correct one: actions for the strengthening of domestic standardization (including deliberation and multi-stakeholder input gathering) processes are coupled with actions within ISO, most prominently the twinning program. Twinning can be more effective than many other technical assistance initiatives designed within the ISO Committee on developing country matters (DEVCO).

However, there are some worrisome signs relating to this initiative: A recent survey showed that more than fifty per cent of these agreements are informal despite the existence of an ISO template.¹⁶³ It also showed that the main beneficiaries of such agreements were the Chinese (23 agreements) and Brazilian (9 agreements) SSBs (as of September 2013).¹⁶⁴ While not perfect, twinning is a very promising instrument that may force changes in perceptions and reforms in the domestic SSBs involved. It can lead to more serious efforts for mutual understanding, respect and eventually trust. It is quite telling that ISO national standards bodies from developing countries largely remain governmental agencies, whereas one would expect that private and multi-stakeholder participation leads to a hybrid form of representation, acknowledging the fact that, in most cases, technical knowledge and know-how is vested with private, industry-driven actors. Twinning may instigate reflection and expeditious action towards the creation of more efficient structures with a view to becoming more eloquent, outspoken and confident at the ISO level. This will be beneficial for the ISO as well because more voices may raise fundamental issues of relevance for certain standards (for instance, due to important regional needs and peculiarities).

Even if the approach vis-à-vis developing countries participation as expressed in the current Action Plan appears to go to the right direction at first blush, no systematic and rigorous review of the impact of such programs and plans (for instance, the ISO Action Plan 2005-2010) seems to have taken place to date.¹⁶⁵ In addition, previous initiatives such as the Forum on Standards Actions in the Global Market (SGM Forum) had mixed results.

The above analysis suggests that, although far from being flawless, the ISO efforts to address standards development-related developing country concerns are in the right direction, in view of the organization's diachronic structural bias towards the most advanced global standard-setters, that is, the traditional players from developed countries. ISO has made good faith efforts to become more inclusive, but the need for reform is not limited at the ISO level; rather, effective participation is also a function of the level of – and determination for – reforms domestically. In other words, no change in effective participation levels will occur without empowerment of domestic standards development bodies and guarantees for respect of due process rights of stakeholders at the domestic level. It is no coincidence that ISO insists on the six principles being respected not only by TCs at the ISO level, but also by national standards bodies, notably those of openness, transparency and impartiality.

Overall, ISO activities and processes appear to be guided to a large extent by the six principles enshrined in the TBT Committee Decision, but additional efforts are warranted to ensure full

¹⁶² Recall that many developing countries are only O-members in DEVCO, which undermines their chances for meaningful participation and influence.

¹⁶³ To assist in striking such agreements, ISO has prepared a twinning agreement template: see http://www.google.ch/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CC0QFjAB&url=http%3A%2F%2Fwww.iso.org%2Fiso%2Ftwinning_agreement_template.doc&ei=CKe6U6u-OaHQ7AbA_ICICg&usg=AFQjCNHwU0qjI-L1MZsW4d01C1wuHPjt9g&bvm=bv.70138588,d.ZGU.

¹⁶⁴ The study was conducted by the Japanese Standards Association, available at : <http://www.jsa.or.jp/itn/pdf/houkoku1302-text1-3.pdf>.

¹⁶⁵ Again, DEVCO appears to be sending questionnaires to beneficiaries of activities implemented under the current Action Plan to assess their impact. See DEVCO 47th meeting – Working Documents, St. Petersburg, 16-17 September 2013, p. 40.

compliance. A remaining interpretive issue is whether failure to comply with one of the TBT principles may be sufficient to question ISO's compliance with the TBT Committee Decision and thus jeopardize the relevance of ISO's standards for WTO purposes. In other words, is the adherence to all principles a precondition for a given ISSB to receive TBT clearance in accordance with Article 2.4 TBT or a more holistic inquiring exercise of the ISSB's overall activities and procedures would have to take place, balancing all existing evidence? In *US – Tuna II*, the Appellate Body did not seem to exclude the latter possibility, as it observed that 'to the extent that a standardizing body complies with the principles and procedures that WTO Members have decided "should be observed" in the development of international standards, it would be easier to find that the body has "recognized activities in standardization"'.¹⁶⁶ A proper reading of the Appellate Body's approach suggests that no mechanical analysis of compliance of ISO (or, indeed, of any ISSB at issue) with the six principles of the TBT Committee Decision would be opted for.

Rather, a broad assessment of the practices of the relevant ISSB would be made, along with an analysis of the procedures that led to the adoption of the standard at hand before a final decision can be reached as to the relevance of such a standard for TBT purposes. Taking ISO as an example, then, the WTO adjudicating bodies would examine whether ISO practices comply with the Decision in general, but also whether the Decision was respected when the *specific* ISO standard at issue was adopted. This would be the direct implication of the fact that, as submitted earlier, the characteristics of the process followed for the eventual adoption of a given ISO standard do affect the ultimate authority and value of that standard.

D. Conclusion

International standardization is key for economic growth and innovation. ISSBs constitute a forum for competition of ideas, whereby one of them (or a combination thereof) will become the reference point for production processes and methods globally. Technical merit and non-economic considerations battle for relevance, whereas the relevant institutions try to ensure their smooth functioning, as such clashes of conflicting values can easily lead to a stalemate. It is important to acknowledge that ISO has no easy mix of tasks to execute in this respect, pending between identification of technical superiority and guaranteeing openness and transparency. When it comes to procedural and substantive safeguards in global institutional settings, setting the bar too high may be misleading, as it does not capture the idiosyncrasies of hybrid, voluntary-based institutions active at the transnational level.¹⁶⁷ Rather, ensuring a fair representation of a wide array of affected interests in the standard-setting process should be the objective of any transnational rule-maker. At the institutional level, responsive statutes and internal regulations should be in place, allowing for adjustments when needed and ex post control.

Technocratic legitimacy may not be sufficient to discharge ISO of the obligations that it has as the global leader in standard-setting. As described earlier, ISO has undertaken serious good faith efforts to address complaints regarding its standard-setting processes notably with respect to participation, relevance and coherence. Its observer status at the TBT Committee also helped getting the pulse of those WTO Members, developing countries for the most part, which believe that access to ISO standard-setting is still intractable.

The world of voluntary standards has evolved to affect more parties globally than initially thought. The early immunity that it enjoyed at the international level due to its non-public nature has eroded after the 'multilateralization' of the TBT Agreement. The voluntary character of standards remained, but the advent of the WTO changed the impact of international standards for ever. Regulatory

¹⁶⁶ See Appellate Body Report, *US – Tuna II*, para. 376.

¹⁶⁷ Cf. A. Moravcsik, 'Is There a "Democratic Deficit" in World Politics? A Framework for Analysis', 39(2) *Government and Opposition* 336.

convergence and reduction of non-tariff barriers would now pass through the adoption of these standards, which were regarded as authoritative expressions of technical state of the art internationally. The TBT took an orthodox view vis-à-vis international standards: standards improve product efficiency and facilitate trade, notably when adopted at the international level, as compliance costs are reduced. Therefore, adherence to international standards becomes a necessary condition for the very attainment of the TBT objectives.

Importantly, no grandfathering would be accepted: as established by the WTO Appellate Body in *EC – Sardines*, even standards adopted before the creation of the WTO would be considered to assess the consistency of the regulatory instruments of a given WTO member with the TBT. Non-compliance with these mandatory benchmarks for domestic technical regulations would raise suspicions as to the good intentions of governmental intervention.

The emergence of new players in the international scene seeking to shape rule-making in international affairs more actively has played no less a significant role in increasing the impact of international standard-setting. Previously run in essence by the developed world, the international standardization community attracted the interest of an ever-increasing number of parties and thus had to become more inclusive without, however, putting into jeopardy its effectiveness with respect to consolidating technological advances. Admittedly, no empowerment of new ISO members is possible without effective participation. Thus, strengthening procedural rights is the gateway to more inclusive and representative international standards. In turn, only higher levels of participation can reduce the knowledge gap between developed and developing countries.

This much-needed reform in ISSBs and the ISO was the result of developments within the TBT Committee, most notably the adoption of the TBT Committee Decision in 2000. Analysis of this Decision and its potential impact has been surprisingly scarce to date. It is the first time in the WTO that the delegation of regulatory power to ISSBs was made conditional to adherence to a series of principles, mainly of procedural due process nature. This Decision was vested with substantial legal value after the *US- Tuna II* ruling, showing the potential bite of WTO adjudication as an ex post legitimating device for international standardization: output by standards organizations will be critically reviewed and perhaps discarded if it fails to satisfy the principles set out in the Decision.

Discussion on ISO standards has been a rare phenomenon in WTO adjudication.¹⁶⁸ One reason for this may be because WTO Members consider ISO to function relatively well, in a transparent, open and efficient manner. However, closer scrutiny of ISO may prove otherwise. Using the example of ISO, this paper took an empirical stance to examine what type of procedural and substantive guarantees are in place to ensure that international standards adopted in international standardization fora are in line with basic tenets of due process or transparency. One of the basic findings of this paper is that much room for improvement of ISO processes exists. ISO has several steps to take to align with the *telos* of the TBT Committee Decision but also with contemporary demands relating to global governance institutions.

The *US – Tuna II* ruling can potentially herald a new era of international co-operation in international standard-setting based on solid grounds relating to due process, consultation, reasoned regulatory-making, inclusion and technical excellence, particularly in light of the Appellate Body's findings. At the same time, *US – Tuna II* was confined to a discussion of practices and institutional structures of a *regional* SSB, whereas it discussed shortly only one of the six principles identified in the TBT Committee Decision. Thus, nothing would prejudice the outcome of a dispute in which an ISO standard would be at issue. This paper, however, argued that the WTO adjudicating bodies will be no less willing to critically review the ISO standard-setting processes. This is also in line with a more critical view of international standard-setting, this time by WTO Members. Anecdotal evidence about

¹⁶⁸ Only few WTO Panel Reports have touched upon specific ISO standards. See, for instance, the *EC Asbestos Panel Report*, WT/DS135/R of 18 September 2000.

insufficiently inclusive and open procedures throw shades against ISSBs and the ISO was no exception. Current discussions in NAMA negotiations only exemplify this discontent.

Whereas this is a welcome development, if it leads to an era of more representative international standards, it is argued that a new conceptual framework is needed to inform the development of international standards in ISSBs. Such framework will inevitably build on the TBT Committee Decision, but shall include other criteria as well, notably with regard to sustainability¹⁶⁹ and inter-institutional sensitivity and cooperation with relevant international organizations but also NGOs, including consumers and trade unions, depending on the subject-matter (for instance, to ensure that a given standard also is in line with pertinent labor or human rights). Indeed, from a normative point of view, for a standard to be regarded as a genuinely international standard, additional, but at the same time more concrete criteria would need to be developed. ISO seems to be very much focused on output legitimacy, which is a fairly appealing approach in an organization dealing with *technical* standards. However, input legitimacy (that is, allowing interested parties to be heard at an early stage in the process), early notification procedures and appropriate mechanisms for review that are easy to understand and use should be inextricably associated with the functioning of any organization that aspires to be a meta-regulator of technical matters at the international level. At the post-adoption stage, systematic impact assessment should be in place, allowing any ISO member to raise the need for revision.

In addition, in line with the dual character of ISO's mission (that is, technical *and* political), scientific rigor, relevance and technical excellence cannot be left outside any analysis as to the international character of a given standard. Furthermore, ISO still has to make decisive steps towards more openness vis-à-vis the public. Information on standard-setting processes and on disciplinary cases or appeals is very difficult to find. This undue secrecy may harm the public image of ISO. Interestingly, even non-technical information produced by ISO such as guides or recommendations of non-technical nature are only available with a fee.

Finally, ISO also has an educational mission to accomplish which sometimes is neglected. The scratch line is not the same for all ISO members and this shows already in the distribution of technical work within ISO. Only by reducing the knowledge gap between ISO members one can hope for the creation of standards that largely reflect global preferences. This is a matter of political willingness and heavy investment: DEVCO regularly raises funding in ISO meetings, but urges the most sophisticated members to increase their efforts and ensuing investment. It is a matter of fairness, but also a strategic matter for ISO: What would happen if the newly emerging economies which start having significant monopsony power experiment with the creation of their own standards that diverge from ISO standards, based on arguments of effective exclusion within ISO? This could have undesirable consequences for all ISO members and everyday business and trade. Further research on the functioning of ISSBs would be necessary to shed light on best practices and policies as well as procedural deficiencies that perpetuate an unbalanced standard-setting landscape at the international level.

¹⁶⁹ ISO has recently published guidelines addressing sustainability in standards development. The guidelines are intended to encourage the examination of issues relating to sustainability during all stages of standards development within ISO. Importantly, the guidelines provide that the lack of considering sustainability issues in the development of a given standard can validly justify the revision of that standard and call for the involvement of knowledgeable experts in such a revision: See ISO Guide 82:2014.

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