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COMMENT to READERS: The paper is quite long, but it is fairly easy reading. For purposes of the Colloquium discussion, readers should read Section I (introduction), could skim through Sections II and III (presenting ISO and its standardization procedures), and then focus on Sections IV (sectoral stakeholder participation and the impact of ISO's desire that its standards enjoy wide acceptance), V (developing country participation and the impact of the WTO endorsement of ISO standards), and VI (the impact of competition with other standardization fora).

THE EVOLUTION OF ADMINISTRATIVE LAW-TYPE PRINCIPLES, MECHANISMS AND PRACTICES IN THE INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)

Eran Shamir-Borer[1]

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[1] J.S.D. candidate, NYU School of Law. Comments will be highly appreciated, at eran@nyu.edu.

I. INTRODUCTION

A. *ISO – A Waking Giant*

Since its establishment in 1947, the International Organization for Standardization (ISO) has published over 15,000 international standards.[2] Many of these standards affect our life on a daily basis, directly or indirectly, for example, as consumers, users or

[2] ISO, ISO IN FIGURES FOR THE YEAR 2005 2 (2006), http://www.iso.org/iso/en/aboutiso/isoinfigures/archives/January2006.pdf [hereinafter ISO IN FIGURES].

traders, usually without even being aware of it. While some ISO standards are technical in nature, such as those standardizing the dimensions of freight containers or the size of banking cards, others clearly reflect a political choice between competing interests and may have far-reaching distributional consequences.

Quite surprisingly, these international standards are developed by a transnational organization, characterized as private, according to some, or as hybrid public-private, according to others. ISO members are not states but national standardization bodies (NSBs), whose identity and composition vary from one country to another, ranging from private entities, usually industry associations, to governmental bodies. This private, or partially-private, nature of ISO obviously raises serious concerns regarding its accountability and the legitimacy of its standards, for example: Who is ISO accountable to in the development of standards of broad application? Who participates in the development of ISO standards and who is affected by them? And which procedures are followed in the development of ISO standards?

Such concerns are exacerbated by several trends in ISO standardization, particularly of the past two decades. First, globalization and the expansion of international trade have dramatically increased the demand for internationally acceptable standards that would remove non-tariff barriers to trade in the form of domestic standards or regulation. This, in turn, has led to an increase in the volume of ISO standards. To give just one example, in the year of 2005 only, ISO published 1,240 standards and standard-type documents, with more than additional 4,000 items in various stages of work appear in the programs of work of ISO's technical committees.[3] A second noticeable trend is the transformation in the subject-matter and character of ISO standards. While in the past ISO developed primarily technical product-related standards, its current scope of work has expanded to cover also non-technical types of product-related standards, service-related standards (e.g., standards for complaint handling), standards for quality management and quality assurance (known as ISO 9000 standards, including guidelines for the implementation of quality management in the education sector), standards for environmental management (known as ISO 14000 standards, among them the recently published standard on

[3] *Id.*

greenhouse gases), information technology (IT) standards, standards for services related to management of drinking water, standards for personal financial planning, and, very recently, even standards for social responsibility of public and private organizations. Moreover, after initially focusing on *ex post* harmonization of existing national practices and standards, ISO has moved to develop standards from scratch,[4] and in certain subject-areas, particularly IT, standards are developed *ex ante*, as an integral part of the design of new technologies.[5] Third, the introduction of new areas of ISO standardization has been accompanied also by a change in the identity of those affected by the standards, and, as a result, have interest in their development process. While in the past it was principally the industry sector that had interest in ISO standards, today these standards are of interest to further stakeholder groups, such as consumers, users, governments, environmentalists, civil-society NGOs and the general public.

In parallel with the above changes, constant erosion in the traditional voluntary character of ISO standards is conspicuous. While in the past the adoption of ISO standards was at the discretion of the state (or its respective NSB), such standards are often far from being entirely voluntary today. Market demands – of consumers, governments (as buyers), financiers and insurers – often make ISO standards *de facto* binding. The often heavy reliance of domestic regulation on ISO standards and their use as benchmarks for reasonable conduct in criminal and civil proceedings occasionally make them *de jure* binding as well.[6] This has culminated in the (implicit) endorsement of ISO standards by the World Trade Organization (WTO) member states in the Agreement on Technical Barriers to Trade (TBT).[7] By obliging states to use "international standards" – the vast majority of ISO standards falling within the ambits of this term – "as a basis" for their technical regulation and national standards related to products or their processes and production methods (PPMs), the TBT Agreement has further "hardened" ISO

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4 Mike Smith, *You know ISO… but what are PAS, TS and IWA?*, ISO BULLETIN, Nov. 1998.

5 Richard W. Hawkins, *Standards-making as technological diplomacy: assessing objectives and methodologies in standards institutions*, *in* STANDARDS, INNOVATION AND COMPETITIVENESS: THE POLITICS AND ECONOMICS OF STANDARDS IN NATURAL AND TECHNICAL ENVIRONMENTS 147, 147-148 (R. Hawkins, R. Mansell & J. Skea eds., 1995).

6 *See infra* notes 61-64 and accompanying text.

7 Agreement on Technical Barriers to Trade, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, Legal Instruments–Results of the Uruguay Round, 1868 U.N.T.S. 120 (1994) [hereinafter TBT Agreement].

standards.[8] Moreover, even when ISO standards are not binding, they may nonetheless impact national and international regulation, given the use that powerful industry stakeholders might make of them in order to hinder such forms of regulation, which usually set more rigorous requirements, for example in the area of environmental protection.[9]

To conclude, ISO is a waking giant. It produces a larger volume than ever of international standards, which cover more subject-areas and affect a wider rage of individuals or groups of individuals. The standardization process takes the form of rule-making, involving balancing between competing interests of stakeholders and making political choices. The products of this process, namely ISO standards, thus appear to be of regulatory nature. Issues which were formerly the subject of national regulation or national standardization are now the subject of ISO regulation, through ISO standards. Moreover, this ISO regulation is binding to a greater extent than before.

B. *Research Questions, Methodological Challenges and Hypotheses*

This paper first seeks to explore the accountability of ISO standardization processes and the legitimacy of ISO standards. However, this task is challenged by the absence of a commonly-agreed understanding of the concepts of "accountability" and "legitimacy" in the context of transnational private or hybrid public-private regulation.[10] To circumvent this challenge, the paper follows in other global administrative law (GAL) scholars' footsteps by looking at ISO standardization processes through the lenses of domestic administrative law.[11] In other words, the paper seeks to identify principles, mechanisms and practices that resemble, in their form or function, those of domestic administrative law, primarily such that enhance participation and transparency and that allow for review

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8 *See infra* notes 65-75 and accompanying text.

9 *See, e.g.*, Naomi Roht-Arriaza, *Shifting the Point of Regulation: The International Organization for Standardization and Global Lawmaking on Trade and the Environment*, 22 ECOLOGY L.Q. 479, 532 (1995) [hereinafter Roht-Arriaza, *Shifting the Point of Regulation*]. *See also* Eyal Benvenisti, *Exit and Voice in the Age of Globalization*, 98 MICH. L. REV. 167, 169, 174 (1999) [hereinafter Benvenisti, *Exit and Voice*], who observes the use that powerful domestic groups make of international law to evade the stringent controls of domestic regulation.

10 *See, e.g.*, Ruth Grant & Robert O. Keohane, *Accountability and Abuses of Power in World Politics*, 99 AM. POL. SCI. REV. 29 (2005).

11 *See, e.g.*, Walter Mattli & Tim Büthe, *Global Private Governance: Lessons from a National Model of Setting Standards in Accounting*, 68 L. & CONTEMP. PROBS. 225, 258 (2005) [hereinafter Mattli & Büthe (*Setting Standards in Accounting*)].

of administrative decisions.[12,13] This paper thus hopes to contribute to the emerging research of GAL by enriching it with a case-study that has not been thoroughly explored from a GAL perspective thus far. The features of ISO mentioned above – its global private / hybrid public-private nature, together with its regulatory functions and the consequence of its standards – particularly make it an interesting subject for GAL research.

The paper further attempts to provide a positive political analysis of ISO standardization processes, seeking to identify the relevant political actors and the interplay between them, and to ascertain who, if at all, dominates this process, who "wins" and who "loses". Such analysis should address both the level of sectoral stakeholder groups (e.g., industry, businesses, consumers, users, general public, etc.), asking whether they are provided voice in transnational standardization, and the level of

[12] The choice of domestic administrative law as the criteria for the accountability and legitimacy of transnational rule-making creates in and of itself a methodological problem, given the disparities between domestic administrative-law systems. This problem is particularly acute in the context of standardization, as the structure – hence also the regulation – of national standardization varies from one country to another. In particular differences are apparent between the U.S. standardization system and the European one. While in the former standardization is delegated to the market, and is pursued by various industry and business sectors, in the latter standardization, even when delegated to private bodies, is much more centralized and subject to greater governmental involvement. Therefore, on its face there is a difficulty in analyzing and evaluating ISO standardization processes using domestic (public) administrative law tools, when such tools often do not apply to national standardization in the first place. Nonetheless, in the absence of other agreed-upon criteria for accountability and legitimacy, domestic administrative law provides a useful tool to analyzing accountability of transnational rule-making. Also, the distance inevitably created between the transnational standardization arena and civil society, the latter being often very effective in monitoring national standardization even when it takes place in the market, seems to justify a different standard of accountability and legitimacy for transnational standardization. Finally, given the fact that ISO standards sometimes substitute national regulation, perhaps it is only appropriate that their development be scrutinized by the same rigorous tools of public administrative law that apply to national regulation.

[13] Obviously, a more sophisticated concept of GAL and of accountability and legitimacy of transnational regulation should be developed, taking into account the distinct features of the transnational level, such as its seemingly unbridgeable democratic deficit. Hopefully, this paper will contribute to such development. The study of ISO so far has already revealed administrative law-type mechanisms that seem to be unique to the transnational level, such as "twinning arrangements" in ISO technical committees, aimed at building capacity and enhancing developing country participation, and the maintenance of attendance lists of participants in technical committees in accordance to their institutional affiliation (e.g., industry, consumers, governments, et cetera), in order to monitor the actual representation of various stakeholder groups.

NSBs, coming from industrialized and developing countries, asking whether ISO deserves its name, derived from Greek word *isos*, meaning "equal".[14]

Finally, this paper also hopes to contribute to the positive political theory of GAL, by drawing some initial conclusions with respect to the factors that enhance, or impede, the development of administrative law-type principles, mechanisms and practices in ISO standardization, and possibly in the decision- and rule-making processes of other global administrative bodies as well. If indeed we find the development of GAL desirable, given its potential to enhance the accountability of global administrative bodies, then understanding the conditions that encourage such development is essential to the institutional design of such bodies.[15] ISO is an opportune case-study in this regard, as it exists over time and its procedures have undergone changes along the years, arguably resulting from both endogenous and exogenous factors.

Questions of positive political theory of GAL have received little attention in the literature so far. Moreover, when such attention was given, it was limited in its institutional scope and, as a result, also in its theoretical framework. More particularly, recent scholarship that has endeavored to explain the evolution of GAL seems to be informed by the theories explaining the evolution of domestic administrative law, particularly agency theories.[16] Such scholarship either focuses on case-studies involving delegation of some kind of legislative discretion,[17] or on situations of principal-agent relationship that implicitly assume such delegation.[18] As a corollary, administrative law mechanisms are perceived as mechanisms of control, primarily aimed at constraining and

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[14] ISO, *Overview of the ISO system*, http://www.iso.org/iso/en/aboutiso/introduction/index.html#four [hereinafter *ISO Overview*].

[15] Benedict Kingsbury, Nico Krisch, Richard B. Stewart & Jonathan B. Wiener, *Forward: Global Governance as Administration – National and Transnational Approaches to Global Administrative Law*, 68 L. & CONTEMP. PROBS. 1, 6 (2005); Benedict Kingsbury, Nico Krisch & Richard B. Stewart, *The Emergence of Global Administrative Law*, 68 L. & CONTEMP. PROBS. 15, 59 (2005) [hereinafter Kingsbury et al., *Emergence of GAL*].

[16] *See, generally*, Gerald E. Frug, *The Ideology of Bureaucracy in American Law*, 97 HARV. L. REV. 1276, 1300-1305 (1984); Matthew D. McCubbins, Roger G. Noll & Barry R. Weigast, *Administrative Procedures as Instruments of Political Control*, 3 J.L. ECON. & ORG. 243 (1987); Matthew D. McCubbins, Roger G. Noll & Barry R. Weigast, *Politics and the Courts: A Positive Theory of Judicial Doctrine and the Rule of Law*, 68 S. CAL. L. REV. 1631 (1995); McNollgast, *The Political Origins of Administrative Procedure Act*, 15 J.L. ECON. & ORG. 180 (1999).

[17] Eyal Benvenisti, *The Interplay between Actors as a Determinant of the Evolution of Administrative Law in International Institutions*, 68 L. & CONTEMP. PROBS. 319 (2005).

[18] Mattli & Büthe (*Setting Standards in Accounting*), *supra* note 11.

monitoring exercise of discretion by the agent delegated with authority. However, the diversity of global administrative bodies calls for richer explanations. As the ISO case demonstrates, GAL norms and mechanisms could develop even in the absence of a clear case of delegation. For example, agency theories fail to explain the administrative-law mechanisms that ISO applies to the standardization work in its own technical committees even in the absence of an external principal. Moreover, GAL mechanisms could serve a variety of purposes rather than solely providing a principal with control mechanisms to minimize agency slack by constraining the latter's exercise of discretion. For example, ISO's administrative-law mechanisms seem to promote the reliability and legitimacy of ISO standardization, thus enhancing the wide acceptance of ISO standards.

Given the nature of this research, theory and hypotheses are of contingent nature and develop dynamically, in tandem with the collection of empirical data. Study of ISO so far has initially brought to surface several factors that arguably enhance the development of administrative-law principles, mechanisms and practices in its standardization processes. These factors, which are tested later on in the paper, do not all derive from a uniform single theory about the evolution of GAL. However, common to all is the perception of ISO as a political actor, somewhat distinct from the NSBs comprising it. As such, ISO has a strong survival instinct, bringing it to exert efforts in order to remain viable and relevant. Perhaps surprisingly, among the hypotheses mentioned below, none is informed by agency theories. The inquiry of ISO's institutional and political facets thus far has arguably demonstrated that the application of such theories to ISO would be unsuitable. The essence of a principal-agent relationship is a delegation of authority from a principal (or several principals) to an agent (or several agents), namely, a conditional grant of authority by a principal to an agent that is limited in time or scope and must be revocable by the principal.[19] Given the fact that ISO's standardization work is carried out by the members themselves (rather than by ISO's international personnel), and the voluntary nature of ISO standards (at least within the ISO regime), it is doubtful whether ISO could be regarded as an agent delegated by its members with standardization authorities.

[19] *See, e.g.*, Darren G. Hawkins et al., *Delegation under anarchy: states, international organizations, and principal-agent theory*, *in* DELEGATION AND AGENCY IN INTERNATIONAL ORGANIZATIONS (Darren G. Hawkins et al. eds., forthcoming Oct. 2006).

One factor that could explain ISO's adoption of administrative-law principles, mechanisms and practices is the desire that its standards – whose adoption is voluntary (at least within the ISO regime) – enjoy wide acceptance and, as a consequence, greater effectiveness.[20] Otherwise, if ISO standards are not widely adopted (by governments, NSBs and the market), they might become irrelevant, and stakeholders, in turn, will have no incentive to participate in future standardization work in ISO. This might be a death warrant to ISO, whose professional viability relies on the voluntary participation of interested stakeholders (mainly experts from the industry sector) in its technical committees, and whose financial viability relies, *inter alia*, on selling standards. Adoption of administrative law principles, mechanisms and practices may contribute to the adoption of ISO standards in at least three ways. First, they rationalize the standardization process, or at least create the appearance of rationality. In the eyes of industry, the principal consumer of standards, standards that are developed through clear and rational procedures may be perceived as being of better technical quality and thus more effective. Second, and even more important, enhancing procedural legitimacy, especially through wide stakeholder participation, is a good way of enhancing the legitimacy of the standards themselves, particularly in the eyes of civil society. Civil society's opinion on standards matters to governments and to NSBs when considering whether to adopt a particular ISO standard in domestic regulation or as a national standard, respectively. But it is also important to industry, as certain standards – particularly such that have clear policy implications, such as environmental standards, the motivation to the adoption of which is satisfying demands by civil society in the first place – are rendered ineffective if rejected by civil society. Finally, as far as participation mechanisms are concerned, stakeholders that participate in the standardization process (and have a sense of fairness) are more committed to its outcomes.

Another factor that arguably explains the existence, or absence, of administrative-law mechanisms is the standardization market in which ISO operates. While in many fields ISO enjoys exclusiveness, being the sole transnational standard-setting body, in others ISO is arguably in competition with other standard-setting bodies. This, in turn, might lead to a dynamic of race-to-the-bottom or race-to-the-top (in the sense of "less"/"more"

[20] Standards could be regarded as "network goods", whose value increases with the number of users.

administrative-law norms and mechanisms, respectively), depending on the features of the specific standardization market. For example, in a standardization market where fair procedures with wide participation may provide ISO with a comparative advantage vis-à-vis other standard-setting actors, ISO will strive to implement such procedures (e.g., in the market of corporate social responsibility (CSR) standards, where ISO standards are competing with other forms of standardization, such as corporate self-regulation). However, in a market where lengthy standardization procedures – indeed, due process and wide participation take time – might render ISO standards irrelevant, ISO will strive to adopt more streamlined and expeditious procedures, usually at the expense of consensus and transparency (e.g., in IT standardization, where ISO is bound to compete with very effective industry consortia, whose standards are often recognized as *de facto* international standards). One caveat should be made, though. It is not always simple to isolate the variable that affects ISO procedures from other interrelated variables. For example, a question arises whether it is the competitive standardization environment in which ISO operates that directs its choice of procedures, or is it the subject-matter of standardization or the presence/absence of civil society-NGOs, whose approval is essential to the success of standards. Further research is required on this point, and the observations in this paper are preliminary only.

A third factor that possibly affects the evolution of administrative law-type principles, mechanisms and practices in global administrative bodies is the public endorsement of their regulation by inter-governmental organizations (in the ISO case, the WTO's (implicit) endorsement of ISO standards through the TBT Agreement). Arguably, standardization bodies, whose standards are usually voluntary, are very much empowered by such endorsement and have an interest to preserve it. To do that, they are expected to augment their administrative law mechanisms and practices, as a result of inter-institutional pressures from the direction of the endorsing organization,[21] in order to satisfy the public law-concerns of states members of the endorsing organization, or due to the "public exposure" associated with the endorsement, which in turn creates public pressure or a "sense of obligation" to enhance procedural legitimacy and accountability. In addition, the upgrade in the status of standards brought about by their public

[21] Benvenisti, *supra* note 17, at 321.

endorsement is expected to increase states' interest in the standardization process and give them an incentive to demand to have voice in it. Further research is required to ascertain the influence of other WTO instruments (particularly the General Agreement on Trade in Services (GATS)) on ISO standards and standardization.

The above factors are not intended to constitute an exhaustive list of factors that affect the evolution of administrative law-type principles, mechanisms and practices. Other factors, such as sociological explanations regarding the domestic administrative law traditions (particularly in the area of standardization) of ISO personnel and members, may also play a role. Another factor that should be tested is the influence of national and international regulatory arrangements, particularly in the area of antitrust. Furthermore, in some cases the development of administrative law-type norms and mechanisms could be explained by a combination of the above factors. For example, in the case of Social Responsibility (SR) standardization, both competition with other standardization fora and the desire to enhance the acceptance of future standards (through satisfying civil society's demands), seem to come into play.

The paper proceeds as follows. Section II generally presents ISO, with emphasis on those features relevant to the standardization process, namely its membership, organizational structure and financing. Section III then provides a first glance at ISO's standardization process, starting with the fundamental concepts that underpin this process and the default procedure for the development of standards. Subsequently, it seeks to provide an initial account from an administrative law perspective of this procedure, focusing on administrative law-type mechanisms and stakeholder participation. Acknowledging the importance of stakeholder participation for any accountable rule-making process, including transnational regulation, the following two Sections evaluate the participation in ISO standardization of both national sectoral stakeholders (Section IV) and developing countries (Section V). The discussion of developing country participation provides an opportunity to examine the influence of the TBT Agreement on ISO standardization process in this regard. Section VI explores innovations in ISO standardization processes, particularly in the area of IT and in the context of cooperation with other standards developing bodies. This opens a window to discuss the impact of competition in the standardization market on ISO's procedures.

II. THE INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO) AT A GLANCE

A. *History and Objectives*

ISO was formally established in February 1947, the result of a conference of representatives of 25 NSBs that took place in London in October 1946.[22] Its full name is the "International Organization for Standardization" (*l'Organisation internationale de normalization* in French). To avoid different abbreviations of this title in different languages, it was decided in the ISO Statutes that the abbreviated title "ISO", coming from the Greek word *isos*, meaning "equal", would be used in all languages.[23]

ISO's objectives, as defined in the ISO Statutes, are to "promote the development of standardization and related activities in the world", with a view to "facilitating international exchange of goods and services and to developing cooperation in the spheres of intellectual, scientific, technological and economic activity".[24] The primary means available to promote these objectives are the harmonization of standards and the development of international standards.[25]

B. *Organizational Character and Membership*

When it comes to ISO, the legalistic impulse to classify a given body into familiar and well-established institutional categories – public/private,[26] inter-governmental/non-

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[22] *ISO Overview*, *supra* note 14. ISO's establishment was in fact the union of two preceding standardization organizations, the International Federation of the National Standardization Associations (ISA) and the United Nations Standards Coordinating Committee (UNSCC). The ISA, established in 1926 and administered from Switzerland, operated mainly in continental Europe (i.e., in "metric" countries) in the area of mechanical engineering. The UNSCC was established by the United States, Great Britain and Canada in 1944 and was administered from London, in close cooperation with the already-existing International Electrotechnical Commission (IEC) (despite the presently-misleading name, it was not affiliated with the soon-to-be-established United Nations). Membership in the UNSCC also included Great Britain's ex-colonies and continental countries as they were liberated. ISO's institutional structure and many provisions in its Statutes and Rules of Procedures were adopted from the ISA. Willy Kuert, *The Founding of ISO*, *in* FRIENDSHIP AMONG EQUALS: RECOLLECTIONS FROM ISO'S FIRST FIFTY YEARS 15, 15-16 (ISO Central Secretariat ed., 1997).

[23] ISO STATUTES art. 1, published *in* ISO, STATUTES AND RULES OF PROCEDURE (14th ed., 2000); *ISO Overview*, *id*.

[24] ISO STATUTES art. 2.1.

[25] *Id.* art. 2.2.

[26] The terms "public" and "private" are used here in their traditional, common meaning, emphasizing the identity of the actors rather than the nature of the functions that they carry out. The term "public" thus captures governmental bodies or such with strong affiliation to the government, and the term "private" is associated with non-governmental bodies.

governmental – is encountered with difficulties. On the one hand, ISO has a private, non-governmental character. Its members are not governments but NSBs, whose identify and composition are determined by the respective originating countries. Many of the NSBs member in ISO are private entities (e.g., standards associations established by industry), or are comprised of both governmental and private stakeholders.[27] On the other hand, only one NSB in each country, which is the "most broadly representative of standardization" in the country,[28] may be admitted to ISO. Also, as a matter of fact, the vast majority of ISO members (over 70%) are NSBs of governmental nature, either governmental departments or autonomous governmental bodies.[29] This confers upon ISO a somewhat inter-governmental quality. Indeed, while some scholars have classified ISO as a private body,[30] others have included it in the constantly expanding category of "hybrid" bodies, both inter-governmental and non-governmental.[31] On ISO web-site, it is depicted as a "network of… national standards institutes... a non-governmental organization… [that] occupies a special position between the public and private sectors".[32, 33]

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[27] For example, the U.S. representative to ISO, the American National Standards Institute (ANSI), is a private, non-profit organization, whose members come from both the private sector (such as businesses, professional societies and trade associations) and from federal governmental agencies. AMERICAN NATIONAL STANDARDS INSTITUTE, OVERVIEW OF THE U.S. STANDARDIZATION SYSTEM (2005), http://www.ansi.org/about_ansi/introduction/introduction.aspx?menuid=1. The German and British ISO members, the Deutsches Institut für Nrmung (DIN) and the British Standards Institution (BSI), respectively, are also private associations. *See, e.g.*, Walter Mattli, *Public and Private Governance in Setting International Standards*, *in* GOVERNANCE IN A GLOBAL ECONOMY: POLITICAL AUTHORITY IN TRANSITION 199, 206 (Miles Kahler & David A. Lakes eds., 2003) [hereinafter Mattli, *Public and Private Governance*].

[28] ISO STATUTES art. 3.1.1.

[29] As of 2002, approximately 85% of ISO members coming from developing countries (representing approximately 75% of ISO membership) were governmental bodies. ISO, ISO/DEVCO-TMB SURVEY ON STANDARDS, REGULATIONS AND CONFORMITY ASSESSMENT IN DEVELOPING COUNTRIES AND ECONOMIES IN TRANSITION pt. 1 (2002), http://www.iso.org/iso/en/commcentre/presentations/ga/gaopen/2002wkshp/ga02wkshp-AET-en.pdf.

[30] *See, e.g.*, Kristina Tamm Hallström, ORGANIZING INTERNATIONAL STANDARDIZATION: ISO AND THE IASC IN QUEST OF AUTHORITY 40 (2004); David A. Wirth, *Compliance with Non-Binding Norms of Trade and Finance*, *in* COMMITMENT AND COMPLIANCE: THE ROLE OF NON-BINDING NORMS IN THE INTERNATIONAL LEGAL SYSTEM 330, 338 n.13, 339 (Dinah Shelton ed., 2000), who categorizes ISO as "an international federation of [national] standardizing bodies" and as a "*private* standardizing organization", at least from a U.S. point of view.

[31] *See, e.g.*, Naomi Roht-Arriaza, *'Soft Law' in a 'Hybrid' Organization: The International Organization for Standardization*, *in* COMMITMENT AND COMPLIANCE: THE ROLE OF NON-BINDING NORMS IN THE INTERNATIONAL LEGAL SYSTEM, *id*. at 263, 265 [hereinafter Roht-Arriaza, *Soft Law*].

[32] *ISO Overview*, *supra* note 14.

There are currently 156 members in ISO, divided into three categories. The first, and most central, is the category of Member Bodies (MBs). MBs are those "national standards bodies most broadly representative of standardization in their respective countries", one NSB from each country.[34] There are currently 100 MBs in ISO.[35] They retain full voting rights and may take active part in all ISO activities. Membership is subject to payment of annual dues.[36] Two other categories of ISO members, Correspondent Members and Subscriber Members, have no voting rights and cannot take an active part in the technical and policy development work, but may attend the General Assembly as observers.[37] Correspondent Members are national bodies in countries without a MB, usually because they do not yet have a fully-developed national standardization infrastructure. They are entitled to be kept fully informed about work of interest to them and attend ISO technical committees as observers.[38] Subscriber Members are national bodies coming from countries with very small economies. They may maintain contact with ISO for reduced membership fees.[39]

C. *Structure*

ISO, whose seat is in Geneva,[40] is comprised of several organs – a General Assembly (GA), a Council, a Technical Management Board (TMB), technical committees, and a Central Secretariat, and several Officers of the Organization – a President, two Vice-

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[33] On the general blurring of the division between public and private in institutionalized standard-setting, *see* Kenneth W. Abbott & Duncan Snidal, *International 'standards' and international governance*, 8 J. EUR. PUB. POL'Y 345, 355 (2001)

[34] ISO STATUTES arts. 3.1.1, 3.2. Decisions on admittance of new MBs to ISO are made by the Council, the applying NSB having a right to appeal to the General Assembly in the event of a negative decision by the Council. ISO RULES OF PROCEDURE cls. 1.2-1.3, published *in* ISO, STATUTES AND RULES OF PROCEDURE, *supra* note 23. When reviewing an application of a NSB to become a MB, the Council determines in particular whether the home country of that NSB is not already represented on ISO and whether that body may be considered as the "most broadly representative in its country in matters of standardization". *Id*. cls. 1.1.1-1.1.2.

[35] ISO IN FIGURES, *supra* note 2, at 1.

[36] ISO RULES OF PROCEDURE, cls. 1.4.

[37] ISO STATUTES arts. 3.1.2, 6.6.

[38] *Id.* art. 3.1.2; ISO, *ISO Members*, http://www.iso.org/iso/en/aboutiso/isomembers/index.html. Correspondent Members are mostly national bodies in developing countries or other political entities. As for January 2006 there are 46 such members. ISO IN FIGURES, *supra* note 2.

[39] ISO STATUTES art. 3.1.2; ISO, *ISO Members*, http://www.iso.org/iso/en/aboutiso/isomembers/index.html. As for January 2006 there are ten Subscriber Members in ISO from countries such as from Burundi, Honduras and Cambodia. ISO IN FIGURES, *id*.

[40] ISO STATUTES art. 17.1.

Presidents, a Treasurer, and a Secretary-General (see figure 1).[41] Mentioned below are only those most relevant to the ISO standardization process.

The hub of ISO's standardization work is the technical committees, a general name for hundreds of Technical Committees (TCs), Sub-committees (SCs) and Working Groups (WGs).[42] Participation in the work of the technical committees is open to all MBs, as full members (P-members, having an obligation to vote on all issues and documents submitted for voting and to participate in meetings) or as observers (O-members, having a right to submit comments and attend meetings but not to vote), subject to the choice of each MB, according to its national interests.[43] MB representatives to the technical committees are either NSB officials or experts appointed by NSBs (principally coming from the industry and business sectors, but also from other sectors, such as consumer groups and governmental agencies), or both. Chairpersonships and secretariats of TCs/SCs are allocated to specific MBs, and, again, may be staffed by either NSB officials or other stakeholders appointed by them.[44]

The overall management of the technical committees is vested in the TMB.[45] In this capacity, the TBM is responsible for various policy and organizational aspects of the technical work (e.g., setting the procedures for the standardization process, the establishment of TCs to standardize in new fields, and the appointment of TCs' Chairpersons), and for the coordination and monitoring of TCs' activities (e.g., approval of programs of work of TCs and allocation of priorities).[46] The TMB reports to the Council, and, when necessary, advises the Council on all matters concerning the organization, coordination, strategic planning, and programming of the technical work.[47]

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41 *Id.* art. 5.

42 As for January 2006 there are 192 TCs, 541 SCs, and 2,188 WGs. ISO IN FIGURES, *supra* note 2.

43 ISO/IEC, ISO/IEC DIRECTIVES, PART 1: PROCEDURES FOR THE TECHNICAL WORK cl. 1.7.1 (5th ed. 2004) [hereinafter ISO DIRECTIVES].

44 ISO/IEC, ISO/IEC DIRECTIVES: SUPPLEMENT – PROCEDURES SPECIFIC TO ISO cl. 1.8.1 (2001) [hereinafter: ISO DIRECTIVES (SUPPLEMENT)] (for appointment of Chairpersons of TCs and SCs); ISO DIRECTIVES, *id.*, cl. 1.9.1 (for allocation of Secretariats of TCs and SCs).

45 ISO STATUTES art. 8.3; ISO DIRECTIVES, *id.* cl. 1.1.

46 ISO STATUTES art. 8.3, 9.3; ISO DIRECTIVES, *id.* cl. 1.1, 1.5.11.

47 ISO STATUTES art. 8.5.

The TMB is chaired by the Vice-President (Technical Management), and consists of twelve MBs.[48]

The Council, consisting of ISO Officers and eighteen MBs, is responsible for ISO's operations, policy and foreign relations, in accordance with the policy laid down by the MBs.[49] It reports on its operations and future planning to the GA at each of the latter's sessions.[50] The Council normally meets three times a year, chaired by the President or the Vice-President (Policy).[51] Decisions are taken by majority vote of the members voting.[52]

D. *Financing*

ISO's chief source of revenue is the membership dues collected from its members, determined based on the respective country's Gross National Income and trade figures.[53] Other sources of revenue are the sale of ISO standards, royalties on copyrights and income from services.[54] However, these revenues finance the operation of ISO Central Secretariat only. The cost of the rest of ISO's operations, namely the standardization work itself, which is four times larger, is directly borne by the MBs and by stakeholders (mainly the industry and business sector).[55] The former usually finance the management of specific standard development projects by providing chairpersonship and secretariatship services. The latter subsidize the technical work by furnishing and funding experts who participate in the technical work (either their employees or experts hired for this purpose).[56]

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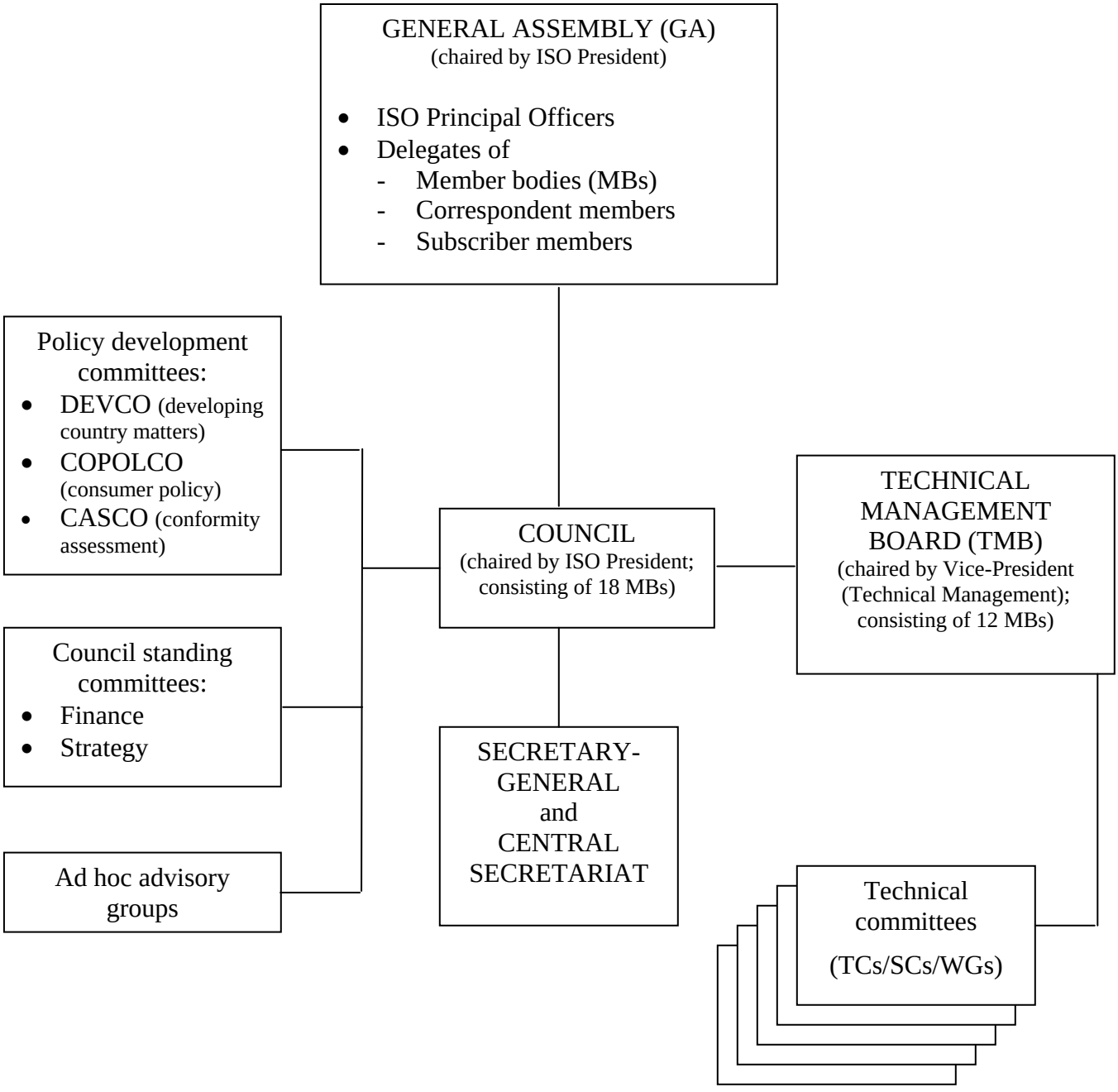
48 *Id.* arts. 8.1-8.2, 12.4.
49 *Id.* art. 7.1.
50 *Id.* art. 7.4.
51 *Id.* art. 7.3; ISO RULES OF PROCEDURE cl. 3.5.
52 ISO RULES OF PROCEDURE cl. 3.9
53 *ISO Overview*, *supra* note 14.
54 ISO's financial statements for the year of 2004, available at ISO, ANNUAL REPORT 2004 16-17 (2005), http://www.iso.org/iso/en/aboutiso/annualreports/index.html; ISO IN FIGURES, *supra* note 2.
55 In 2005 the operation costs of the ISO Central Secretariat were 30 million CHF and the estimated costs of the operation of the technical committees were 120 million CHF. ISO IN FIGURES, *id.*.
56 *ISO Overview*, *supra* note 14. ISO RULES OF PROCEDURE cl. 5.8 specifically provides that the "costs incurred by members of a technical committee or its secretariat shall not be borne by the Organization".

Figure 1: ISO Organizational Structure[57]



[57] The figure, which is based on ISO, *ISO's Structure*, http://www.iso.org/iso/en/aboutiso/isostructure/isostr.html, does not present a complete picture of ISO structure, but only of its main organs and office-holders.

III. ISO STANDARDIZATION PROCESS – AN INITIAL ACCOUNT

Along the years, with the expansion in ISO's scope and the transformation in market requirements, ISO has established several formal tracks for the development of standards. The present Section describes the "normal" procedure, which is the default standardization track, and seeks to provide an initial assessment of this procedure from an administrative-law point of view.[58] However, in order to have a better understanding of ISO's standardization process, it is useful to present first the fundamental concepts of the ISO standardization process, given their impact on the design of the standardization process in general, and on the evolution of administrative-law principles, mechanisms and practices in particular.

A. *The Hallmarks of ISO Standardization Process – Voluntarism and Consensus*

The concepts of "voluntarism" and "consensus" are considered to be the hallmarks of the institutional standardization process, in ISO as well as in other transnational and international standardization bodies.[59]

1. The Concept of "Voluntarism"

The concept of "voluntarism" has two dimensions. First, those who participate in the standardization process and contribute as experts to the technical work in the technical committees do this at their own will (and expense). Second, the products of the standardization process, namely the international standards themselves, are voluntary. The members of the standardization bodies have no prior obligation to adopt them and the standardization body has no authority to enforce compliance with them. ISO Statutes specifically read that "[d]ecisions of the Organization in the form of approved International Standards constitute recommendations to the embers, each member remaining free to either follow or not to follow them".[60]

However, as many have already observed, ISO standards are not entirely voluntary, neither *de jure* nor *de facto*. ISO standards, in particular those concerned with health,

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58 For discussion of other standardization tracks *see* particularly *infra* Section VI.
59 Hawkins, *supra* note 5, at 147.
60 ISO STATUTES art. 4.2.

safety or the environment, are frequently adopted by states and become part of domestic regulation.[61] While in some countries domestic regulation only partially adopts ISO standards, in other countries, especially developing countries that lack a mature domestic standardization infrastructure, they are incorporated in their entirety. Even if ISO standards are not adopted in domestic regulation or as national standards, they are occasionally used as benchmarks for reasonable conduct in criminal and civil proceedings.[62] Many ISO standards, especially those dealing with quality management systems (QMS) (the ISO 9000 series) and environmental management systems (EMS) (the ISO 14000 series), are also adopted by government procurement rules, leaving no choice to companies and businesses but to comply with them.[63] In addition, ISO standards often become market requirements when consumers, buyers, financiers or insurers make them a prerequisite for companies and businesses wishing to do business with them.[64]

The relatively recent adoption of the TBT Agreement has cast even greater doubt on the voluntary nature of ISO standards. While the implications of this agreement on ISO standardization process will be discussed later on, it is worth mentioning here the potential "hardening" effect that it has on the purportedly voluntary ISO standards. Aiming to ensure that standards do not "create unnecessary obstacles to international trade",[65] the TBT Agreement obliges all states member of the WTO to use "international standards" (or draft international standards whose "completion is imminent") as a "basis" for their technical regulation related to products or their processes and production methods, except where such international standards are ineffective or inappropriate.[66] Moreover, national technical regulation that is "in accordance with" the relevant international standards, is "rebuttably presumed" not to create an unnecessary obstacle to international trade.[67] If states wish to introduce technical regulation that is not in accordance with the technical content of relevant international standards and that might

61 *ISO Overview*, *supra* note 14.
62 *See, e.g.*, Roht-Arriaza, *Shifting the Point of Regulation*, *supra* note 9, at 517.
63 *See, e.g.*, *id.* at 486, 515.
64 *See*, e.g., *id.* at 486, 516-517; Tamm Hallström, *supra* note 30, at 10 (with respect to the experience with ISO 9000).
65 TBT Agreement, *supra* note 7, Preamble fifth para.
66 *Id.* art. 2.4, Annex 1 art. 1.
67 *Id.* art. 2.5.

significantly affect international trade, they are required to follow a "notice and comment" procedure on an international scale.[68]

The TBT Agreement does not specifically endorse ISO standards or the standards of any other international standardization body.[69] However, undoubtedly it intended to capture at least the vast majority of ISO standards within its scope.[70, 71] It is still hard to asses the extent of the obligations introduced by the TBT Agreement (primarily with respect to the required relationship between international standards and domestic regulation, embodied in the phrases "as a basis for" and "in accordance with"), given the paucity of cases invoking the TBT Agreement to challenge national technical regulation. Nonetheless, it is obvious that the TBT Agreement has hardened ISO standards – indeed even draft ISO standards – potentially making them more binding than before, not only *de facto* but also *de jure*.[72]

The TBT Agreement not only creates obligations for states, but also extends its reach to NSBs, both governmental and non-governmental. WTO member states are required to ensure (with respect to "central government standardizing bodies"), or to take reasonable measures to ensure (with respect to "non-governmental standardizing bodies"), acceptance and compliance with the Code of Good Practice for the Preparation, Adoption

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68 *Id.* art. 2.9.

69 As opposed to the Agreement on the Application of Sanitary and Phytosanitary Measures, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, Legal Instruments–Results of the Uruguay Round, 1867 U.N.T.S. 493 (1994) [hereinafter SPS Agreement]. For the reasons behind the TBT Agreement's failure to define "international standards" or endorse specific standardization bodies, *see infra* Section VI.B.

70 Annex 1 to the TBT Agreement even incorporates, with some changes, the definitions contained in ISO/IEC, ISO/IEC GUIDE 2: GENERAL TERMS AND THEIR DEFINITIONS CONCERNING STANDARDIZATION AND RELATED ACTIVITIES (6th ed., 1991), into the Agreement. Also, Annex 3 to the TBT Agreement orders the use of ISO resources (the ISO/IEC Information Center in Geneva) in the management of NSBs' notifications of acceptance of, or withdrawal from, the Code of Good Practice for the Preparation, Adoption and Application of Standards. TBT Agreement, *supra* note 7, Annex 1, Annex 3 para. C.

71 ISO service-related standards are one group of ISO standards which are definitely not covered by the TBT Agreement that deals with product and product-related processes and production methods (PPMs) only. TBT Agreement, *id.* art. 1.3, Annex 1 art. 2 (explanatory note). Doubts may arise with respect to the relevance of the TBT Agreement to other types of ISO standards as well, such as standards in the area of information technology (IT). Also, further research is required to ascertain the influence of other WTO instruments (particularly the General Agreement on Trade in Services (GATS)) on ISO standards and standardization.

72 *See, e.g.*, Wirth, *supra* note 30, at 339, who asserts that "the TBT Agreement 'hardens' ISO standards into binding law, at least under some circumstances". Roht-Arriaza speaks of the "privileged status" of ISO standards in trade law after the TBT Agreement, such that even voluntary standards created by inter-governmental technical bodies do not enjoy. Roht-Arriaza, *Soft Law*, *supra* note 31, at 271.

and Application of Standards in Annex 3 to the Agreement.[73] Similar to the obligation imposed on states with respect to national technical regulation, the TBT Code of Good Practice – accepted thus far by NSBs from 110 countries[74] – requires that "[w]here international standards exist or their completion is imminent", they shall be used "as a basis" for national standards under development, except where such international standards would be "ineffective or inappropriate, for instance, because of an insufficient level of protection or fundamental climatic or geographical factors or fundamental technological problems".[75] In other words, ISO standards, constituting "recommendations" only to ISO MBs according to the ISO regime, and draft ISO, which do not constitute even recommendations to ISO MBs, become largely binding on them by virtue of an external inter-governmental agreement concluded by their respective states.

What might be the implications of the erosion in the voluntary nature of ISO standards to the concerns raised above, especially regarding lack of accountability and participation in ISO standardization processes? In ISO's earlier days, its standards were primarily product-related and of technical nature, and affected a relatively small and defined group of stakeholders, mainly industry, whom they meant to serve. Seemingly, there was a correlation between the voluntary nature of the standards (i.e., only those who willed adopted them) and the voluntary nature of participation in the standardization process (assuming that those who had interest and intention to adopt a standard also had an incentive to participate in its development (and bear the associated costs)). The voluntary nature of the standards blunted the disadvantage to those who have not participated in their development. However, the more the scope of ISO standards expands to address additional subject-matters, affecting a wider range of stakeholders, and the less voluntary they became, the more it seems problematic that the participation in the standardization process remains voluntary. The more ISO standards become of public nature (due to market pressures and formal national and international regulation), the more disturbing is the autonomy of the private / hybrid private-public fora where they are developed.

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[73] TBT Agreement, *supra* note 7, art. 4.1.

[74] ISO/IEC, WTO TBT STANDARDS CODE DIRECTORY (2005), http://www.iso.org/iso/en/comms-markets/wto/pdf/scd2005-1-en.pdf. Data is updated as for March 1, 2005.

[75] TBT Agreement, *supra* note 7, Annex 3 para. F.

2. The Concept of "Consensus"

Another hallmark of standardization is the principle that standards, including international standards, are accepted by consensus of those participating in the standardization process.[76] This feature of standardization, on its face of procedural nature being a prescription for the desired decision-rules in standardization bodies, essentially defines the substance standards: standards are those documents that are established through consensus.[77] The exact definition of the type of majority that actually constitutes consensus may vary from one standardization body to another and even between different types of decisions within the same standardization body. In any event, consensus does not necessarily imply unanimity.

ISO's commitment to the consensus principle is found in its Rules of Procedure:

> Unless otherwise provided by the Technical Management Board, all matters [in the technical committee] shall be decided by a consensus agreement of the member bodies actively participating in the work of the technical committee…[78]

Faithful to this basic principle, the approval of ISO standards, as well as the approval of any drafts in the standardization process, generally requires consensus support (the specific parameters of which will be explained later on).

When looking at ISO's definition of the consensus requirement, its relevance to the discussion here, particularly to the concerns regarding stakeholders' participation, becomes apparent. The procedurally-oriented definition, in and of itself heralds the importance of wide participation as a cornerstone of standardization:

> Consensus: general agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests

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[76] Hawkins identifies the roots of the generally accepted principle of "consensus" in the "genealogy" of standardization institutions, namely the diplomatic international trade and technical congresses that were established in the mid- to late 19th century, and were governed by the diplomatic techniques of concession and compromise. Hawkins, *supra* note 5, at 148-149.

[77] ISO/IEC, ISO/IEC GUIDE 2: STANDARDIZATION AND RELATED ACTIVITIES – GENERAL VOCABULARY cl. 3.2 (8th ed., 2004) [hereinafter ISO GUIDE 2] defines the term "standard" as follows: "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…"

[78] ISO RULES OF PROCEDURE cl. 5.5.

and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments.

Note Consensus need not imply unanimity.[79, 80]

This definition of consensus thus highlights the essentiality of the active participation of all relevant stakeholders – such as industry, consumers and governmental regulators – in the standardization process, as well as the obligation to take their views into account until "no sustained opposition to substantial issues" remains. Seemingly, there are both quantitative and qualitative dimensions to consensus.[81] Such notion of consensus thus potentially empowers any group of stakeholders, even relatively weak once, such as consumers and developing countries. Once the opportunity to participate in the standardization process has been provided, strong arguments, repeated often enough, may suffice to remove an undesired aspect from a standard or from a work proposal.[82]

Obviously, the mere acknowledgement that the views of all stakeholders around the standardization discussion table should be taken into account does not suffice when not all relevant stakeholder are around this table in the first place. The concerns of under-representation of certain stakeholder groups in the ISO standardization process will be discussed later on. It is sufficient to mention here that various factors, among them the cost of participation (bearing in mind the ISO rule that participants bear their own travel and participation costs), the lack of sufficient technical expertise, and the requirement that participants in the standardization process be affiliated with a particular MB, make the standardization process partially inaccessible to various stakeholder groups, such as consumers, developing counties and environmental groups.

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79 ISO GUIDE 2, *supra* note 77, cl. 1.7.

80 Following the requirement in clause 5.6 of the ISO Rules of Procedure the TMB formulated a more "workable definition" of the consensus concept, to be applied at the TC level. *See*, in particular, ISO DIRECTIVES, *supra* note 43, cl. 2.5.6, and the discussion on ISO decision-making process *infra* text accompanying note 136-137.

81 However, beyond the TC level the criteria for the approval of draft international standards (DIS) and final draft international standards (FISD) seems to be purely quantitative. *See infra* text accompanying notes 117, 126, 137.

82 *See, e.g.*, ISO, THE CONSUMER AND STANDARDS: GUIDANCE AND PRINCIPLES FOR CONSUMER PARTICIPATION IN STANDARDS DEVELOPMENT 21 (2003): "The requirement for consensus is thus the strongest tool that a consumer representative can utilize…"

Moreover, similar to the erosion in the voluntarism principles, signs of erosion are also noticeable with respect of the consensus requirement. These will be discussed later on. Nonetheless, the principle of consensus largely remains a fundamental concept of the ISO standardization process.

Finally, it is noteworthy illuminating another aspect of the relationship between the consensus principle and wide participation. While wide participation is a prerequisite for the substantive fulfillment of consensus, as mentioned above, there is also an inherent tension between the two. The wider the participation is (in terms of diversity of interests), the more difficult it is to reach consensus over standards,[83] or, in the alternative, it might impair the quality of standards, leading to the adoption of the least-common-denominator standards.[84]

B. *How are ISO Standards Developed – the "Normal" Procedure*

The present sub-section describes the "normal" procedure for the development of ISO standards, as detailed in ISO Directives.[85] These Directives, issued by the TMB,[86] set out procedures for ISO's technical work, primarily the development of standards carried out in the technical committees.[87] The development of ISO standards is market-driven, and usually originates in the needs of the industry sector (for example, a manufacturer wishing to have the features of a particular product or its production processes recognized as an ISO standard in order to raise its ability to compete in global markets). However, the translation of these needs into actual standards is not direct. To launch an ISO

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[83] Hawkins, *supra* note 5, at 154.

[84] Roht-Arriaza, *Shifting the Point of Regulation*, supra note 9, at 529.

[85] Despite the central place that the standardization work occupies in ISO, its regulation is almost completely absent form ISO's "constitutional" documents. ISO Statutes and the Rules of Procedures are primarily concerned with ISO's governance, and refer only generally to the procedures for the development of the standards themselves. Even fundamental issues, such as the type of majority required for the approval of standards and the actors participating in the standardization process, are left for further elaboration in more technical documents. Largely, ISO Statutes and Rules of Procedures provide that the approval of standards lies within the authority of the MBs (either in the General Assembly or by letter ballot) (ISO STATUTES art. 4), that decision-making in the TCs requires "consensus agreement" (ISO RULES OF PROCEDURE cl. 5.5), that MBs may appeal against actions or inactions of the TCs (ISO RULES OF PROCEDURE cls. 5.9-5.10), that standards shall be issued in ISO's three official languages (English, French and Russian) (ISO STATUTES art. 18.2), and that ISO is authorized to publish standards and other standardization-related documents (ISO STATUTES arts. 19.1.1-19.1.2).

[86] ISO RULES OF PROCEDURE cl. 5.6.

[87] ISO DIRECTIVES, *supra* note 43; ISO DIRECTIVES (SUPPLEMENT), *supra* note 44.

standardization process, these needs must be communicated to, and embraced by, the respective MB (which considers the interests of other industry actors and of other stakeholders in the domestic market, such as consumers), or by ISO organs. Once this is achieved the "normal" standardization process is advanced in six stages (see also figure 2), ideally lasting altogether 36 months.

1. The Proposal Stage

The Proposal Stage is aimed at confirming the necessity of a proposed standard before launching the technical work for its development. Proposals for new standards are submitted to the relevant TC/SC as a "new work item proposal" (NP).[88] Such proposals could be made by a MB, by certain ISO organs or by an organization in formal liaison status with ISO.[89]

A new work item proposal must show justification to the development of a new standard,[90] referring, *inter alia*, to the interest groups that might benefit from, or be affected by, the standardization activity (e.g., industry, consumers, trade, governments, distributors), to the feasibility of the standardization activity (i.e., whether there are any factors that could hinder the successful establishment or general application of the standard), and to the relationship between the standardization activity and national regulation (i.e., whether it is or is likely to be the subject of regulation, or whether it requires the harmonization of existing regulation).[91] Also, the proposal must indicate the interaction with other relevant organizations or bodies, in order to allow for cooperation, on the one hand, and to avoid conflict and duplication of efforts, on the other hand.[92] The originator of the proposal is encouraged to submit a first working draft for discussion or at least an outline of such a working draft, and must nominate a "project leader".[93]

A prerequisite for the approval of a new work item proposal is that at least five MBs that are P-members of the TC/SC undertake to participate actively in the development of

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88 ISO DIRECTIVES, *id.* art. 2.3.1.

89 *Id.* art. 2.3.2. ISO organs that can submit a new work item proposal are the secretariat of the relevant TC/SC, another TC/SC, the TMB or one of its advisory groups, or the Secretary-General. For more details on the status of liaison organizations *see infra* text accompanying notes 202-212.

90 *Id.* art. 2.3.4.

91 *Id.* Annex C art. C.5.3.1.

92 *Id.* Annex C art. C.5.6.

93 *Id.* art. 2.3.4, Annex C art. C.5.7.

the standard, by nominating technical experts and by commenting on working drafts.[94] Once this prerequisite is met, the TC/SC may approve the proposal by a simple majority of the TC/SC P-members voting.[95] Once approved, the proposal is registered in the program of work of the TC/SC as a new project with agreed target dates for its development.[96]

2. The Preparatory Stage

The Preparatory Stage is expert dominated, aimed at producing a "working draft" (WD) that will define the technical scope of the future standard.[97] Work is usually carried out in WGs established by the TC/SC.[98] Such WGs comprise of the project leader, who usually convenes and chairs the meetings, and of technical experts nominated by the MBs during the proposal stage.[99] Liaison organizations of categories A and D of may also nominate experts to the WG.[100] The preparation of a working draft should not normally exceed six months.[101] Once completed to the satisfaction of the WG, the working draft is forwarded to the TC/SC as a first "committee draft" (CD).[102]

3. The Committee Stage

While the Preparatory Stage is conceived as technical, the Committee Stage is somewhat more political, aimed at building consensus around the technical content of the future standard. This is the principal stage at which comments from MBs are taken into consideration.[103] It is accomplished through circulation of the first committee draft to all TC/SC members (both P-members and O-members), who are, in turn, required to forward

94 *Id.* art. 2.3.5.a); ISO DIRECTIVES (SUPPLEMENT), *supra* note 44, cl. 2.3.
95 ISO DIRECTIVES, *id.* art. 2.3.5.b).
96 *Id.* art. 2.3.6.
97 In the event that the new item proposal already included an initial working draft and the TC or SC approved it, the preparatory stage may be omitted. *Id.* Annex F, art. F.1.
98 *Id.* art. 2.4.3.
99 *Id.* art. 2.4.2, 2.4.4.-2.4.5.
100 *Id.* art. 2.4.4.
101 *Id.* arts. 2.1.6, 2.4.7.
102 The criterion for acceptance of the working draft is not defined. Assumingly, the aspiration is to achieve consensus among the experts member of the WG. The determination on the acceptance of the working draft for circulation to the TC/SC is made by the TC/SC secretary "in conjunction with the committee". ISO DIRECTIVES (SUPPLEMENT), *supra* note 44, Annex SN.
103 ISO DIRECTIVES, *supra* note 43, art. 2.5.1.

their comments within three months.[104] A compilation of the comments submitted is then also circulated to all TC/SC members.[105]

Depending on the comments submitted by the TC/SC members, the secretariat of the TC/SC may propose either that the committee draft and comments be discussed in a further meeting of the TC/SC, that a revised committee draft be circulated for consideration, or that the committee draft be forwarded to the next stage.[106] The TC/SC P-members are allowed two months to respond.[107] It is sufficient that two such members demand that the committee draft be discussed in a meeting for such a meeting to be convened.[108] Successive committee drafts are developed and circulated until consensus among the TC/SC P-members is obtained (or a decision to abandon or defer the project is made).[109]

As mentioned above, the consensus requirement does not imply unanimity. It is necessary that "general agreement" among the P-members of the TC/SC is reached, "characterized by the absence of sustained opposition to substantial issues".[110] In event of doubt whether consensus has been obtained, a positive vote by a two-thirds majority of the TC/SC P-members voting is sufficient to cast this doubt.[111] Once the TC/SC chairperson is convinced that the committee draft enjoys consensus,[112] the committee draft is ready for circulation among the all ISO MBs as a "draft international standard" (DIS).[113] It is generally expected that the Committee Stage end within six months.[114]

4. The Enquiry Stage

At the Enquiry Stage the consideration of the future standard goes beyond the boundaries of the TC/SC to involve all ISO MBs. The draft international standard is

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[104] *Id.* art. 2.5.2.
[105] *Id.* art. 2.5.3.
[106] *Id.* art. 2.5.3.
[107] *Id.* art. 2.5.3.
[108] *Id.* art. 2.5.3.
[109] *Id.* art. 2.5.5.
[110] *Id.* art. 2.5.6; ISO GUIDE 2, supra note 77, cl. 1.7.
[111] ISO DIRECTIVES, *id.* art. 2.5.6.
[112] Article 2.5.6, *id.*, actually uses the somewhat obscure language "whether there is sufficient support bearing in mind the definition of consensus…". However, relying on the second part of Article 2.5.6 and other articles in its vicinity, it seems that the requirement for consensus is firm.
[113] *Id.* cl. 2.5.9.
[114] *Id.* cls. 2.1.6, 2.5.8.

circulated by the Secretary-General to *all* MBs, both TC/SC members and others, for a five months voting and comment period.[115] MBs' vote may be either positive, negative, or abstention. A positive vote may be accompanied by editorial or technical comments (as long as these are not preconditions for the acceptance of the draft international standard). A negative vote must state the technical reasons for the rejection of the draft international standard.[116]

A draft international standard is approved if two-thirds majority of the votes cast by the TC/SC P-members are in favor, and not more than one-quarter of the total number of votes cast are negative (abstentions and negative votes that are not accompanied by technical reasons are excluded when the votes are counted).[117] Upon receipt of the results of the voting and any comments, they are forwarded by the Secretary-General to the TC/SC chairperson and secretariat for further action.[118] If the draft international standard is approved, the chairperson may decide to proceed to the Approval Stage, in which case the secretariat prepares a final text and sends it to the office of the Secretary-General for circulation as a "final draft international standard" (FDIS).[119] However, if the criteria for approval are not met, the chairperson may decide either to circulate a revised draft international standard for voting, to circulate a revised committee draft for comments, or to discuss the draft international standard and the comments at further TC/SC meetings.[120] As in the Committee Stage, it is sufficient that two such members demand that the draft international standard be discussed in a meeting for such a meeting to be convened.[121] The results of the vote, the decision of the TC/SC chairperson, and the comments received together with the observations of the TC/SC secretariat on each of them, are all circulated to all ISO MBs.[122] It is generally expected for the Enquiry Stage to end within twelve months.[123]

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[115] *Id.* cl. 2.6.1.
[116] *Id.* cl. 2.6.2.
[117] *Id.* cl. 2.6.3.
[118] *Id.* cl. 2.6.1.
[119] *Id.* cls. 2.6.4, 2.6.6. In the event that the draft international standard (DIS) is approved with no negative votes, the TC/SC chairperson may decide to proceed directly to publication. *Id.* cl. 2.6.4.b).
[120] *Id.* cl. 2.6.4.
[121] *Id.* cl. 2.6.5.
[122] *Id.* cl. 2.6.5.
[123] *Id.* cl. 2.1.6, 2.6.8.

5. The Approval Stage

The procedures in the Approval Stage are similar to those in the preceding stage, only that the timeframe for the consideration of the final draft international standard distributed to all ISO MBs is two months, and that MBs voting in support of the document are not allowed to attach any comments to their affirmative vote.[124] Negative votes still require technical justification, which is forwarded to the TC/SC for consideration at the time of the next review of the standard (if approved), or to assist in the reconsideration of the final draft international standard (if not approved).[125] Again, the results of the vote are circulated to all ISO MBs.[126] If the final draft international standard is approved (under the same criteria applicable to the Enquiry Stage), then it is forwarded to the Publication Stage. In the event, however, that it is not approved, it is referred back to the TC/SC, that may re-submit a modified draft as a committee draft, draft international standard, or final draft international standard, or cancel the project altogether.[127] It is generally expected for the Approval Stage to end within nine months.[128]

6. The Publication Stage

Once the final draft international standard is approved, the Central Secretariat publishes the ISO standard. It is generally expected that the publication stage will end within three months.[129]

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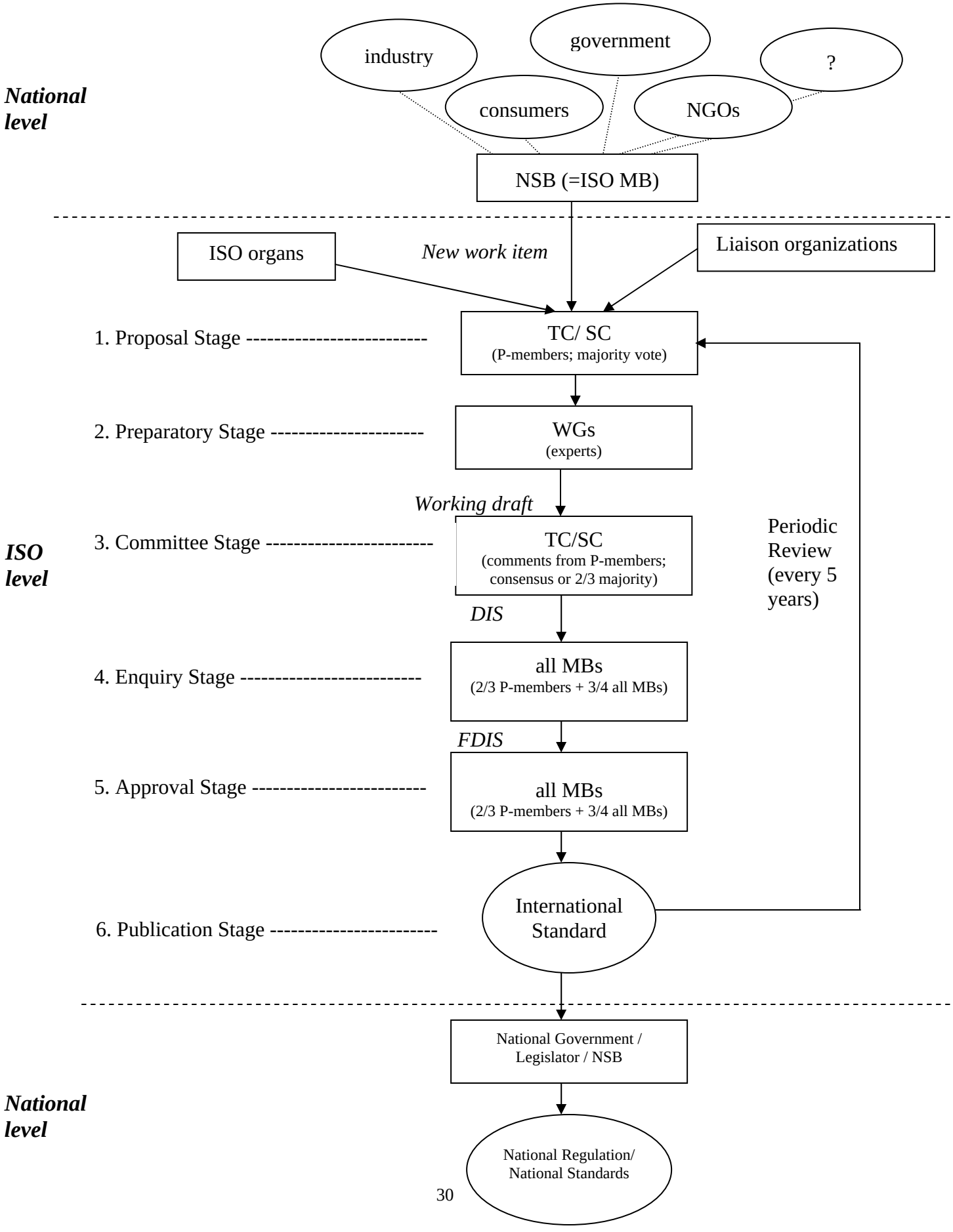
[124] *Id.* cl. 2.7.1-2.7.3.
[125] *Id.* cl. 2.7.3 & 2.7.7.
[126] *Id.* cl. 2.7.5.
[127] *Id.* cl. 2.7.7.
[128] *Id.* cl. 2.1.6, 2.6.8.
[129] *Id.* cl. 2.1.6.

Figure 2: Development of ISO standards (the "Normal" procedure)



Having presented the "normal" procedure for the development of ISO standards, the following sub-section seeks to initially assess this procedure from an administrative-law point of view. For example, asking which administrative law-type mechanisms are integrated into the process and to what extent they could promote wide participation of interested parties. Note, however, that this does not purport to present a complete administrative law-account of the ISO standardization process, but to focus on initial observations and concerns that arise from the "normal" procedures only (rather than from other types of standardization tracks, or from a more political or structural aspects of the standardization process that will be dealt later on).

C. *Administrative-Law Principles, Mechanisms Practices in the "Normal" Procedure – an Initial Account*

1. Right to Participate in the Technical Work

The "normal" procedure seems to manifest a deep commitment, at least at the level of MBs, to wide participation in the standardization process. All MBs have the "right to participate" in the work of the TCs/SCs.[130] However, for purposes of efficiency and discipline, MBs are required to notify in advance whether they intend to participate actively in the technical work or if they intend to follow the work as observers. If the former, MBs are classified as P-members and are obliged to vote on all issues and documents submitted for voting and to participate in meetings. If the latter, they are classified as O-members and have a right to submit comments and attend meetings but cannot vote (i.e., the right to submit comments at the technical stage is not limited to P-members).[131] Moreover, the right to vote on draft international standards and on final draft international standards that are developed by a particular TC/SC is maintained by all MBs, regardless of whether they are members in that TC/SC.[132]

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[130] *Id.* cl. 1.7.1; ISO STATUTES art. 9.2.

[131] ISO DIRECTIVES, *id.* cl. 1.7.1. If P-members fail to fulfill their voting and participation obligations, the Secretary-General is authorized to take measures against them, including changing their status from P-members to O-members. *Id.* cls. 1.7.4-1.7.5.

[132] *Id.* cl. 1.7.1.

2. "Notice and Comment" Mechanism

The recurring circulation of draft documents for comments of MBs, first at the TC/SC level (at the Committee Stage) and then at the level of all MBs (at the Enquiry and Approval Stages), resembles the "notice and comment" mechanism that applies to administrative agency rule-making under U.S. federal administrative law or comparable mechanisms in other national administrative-law systems. The function of the two similar mechanisms, however, is not completely identical. The domestic "notice and comment" mechanism, aimed at ensuring that administrative rule-making is informed and responsive to the affected social and economic interests, seeks to expand the range of participants in the agency decision-making process through public notification of the proposed rule-making, invitation of interested parties to submit comments, and careful consideration of comments submitted.[133] The purpose of the ISO "notice and comment" mechanism seems to be two-fold – not only advancing wide participation, but also gradually building consensus among MBs. The purpose of building consensus is achieved through recurring rounds of circulating documents and considering the comments received, which are gradually opened to include wider audiences of MBs. The working draft is usually developed (at the Preparatory Stage) by experts nominated by interested MBs. Subsequently, the Committee Stage is the principal stage at which comments from MBs (that are members of the TC/SC) are taken into consideration, "with a view to reaching consensus on the technical content" of the future standard.[134] Several rounds of circulation and comments are possible, until a consensus at the TC/SC level is reached. The efforts to obtain consensus are then broadened, at the Enquiry and Approval Stages, to the level of all ISO MBs. The purpose of advancing wide participation is advanced through circulation of documents also to MBs that have not taken active part in the technical work, first to O-members at the TC/SC level (at the Committee Stage) and then to MBs that are not represented in the TC/SC. In addition, MBs are expected to use the

[133] Administrative Procedure Act (APA) 5 U.S.C. § 553(b)-(c); Richard B. Stewart, *U.S. Administrative Law: A Model for Global Administrative Law?*, 68 L. & CONTEMP. PROBS. 63, 75 (2005).
[134] ISO DIRECTIVES, *supra* note 43, cl. 2.5.1.

commenting periods to obtain input from stakeholders at their respective countries, by this widening the range of participants, albeit indirect ones, even more.[135]

3. Quantitative Interpretation of the Consensus Concept

The "normal" procedures demonstrate the "working definition" of the consensus concept as formulated by the TMB. It was mentioned above that this concept, as generally defined by ISO, bears both quantitative and qualitative dimensions, as the criterion of "absence of sustained opposition"[136] means that a determination that a consensus has been reached cannot be made solely by counting noses. However, the working definition of consensus seems to emphasize only the quantitative dimension of consensus, perhaps under the presumption that quantity makes quality (or is at least a good indication of it). For example, a decision to circulate a draft international standard (i.e., move from the Committee Stage to the Enquiry Stage) can be made on the basis of a vote in cases where consensus has not been reached (alongside constant attempts to resolve negative votes).[137] At the Enquiry and Approval Stages, the criteria for approval of draft international standards and final draft international standards, respectively, are not even defined as "consensus" but are based on a qualitative majority vote.

4. The Obligation to Justify Negative Votes

Despite the openness manifested in the "normal" procedures towards wide participation (at least at the MBs level), several rules have the potential of excluding certain MBs, especially those coming from developing countries. One such rule is the obligation to technically justify negative votes when voting on draft standards at the Enquiry and Approval Stages.[138] Negative votes that are not accompanied by technical reasons are excluded when the votes are counted.[139] Although the obligation to justify negative votes may indeed help promoting rationality and insulate ISO decision-making from international politics, at the same time it might also burden states that oppose to a particular draft standard but lack the resources to thoroughly examine each and every

[135] On the responsibility of MBs to take into account interests at the national level, *see infra* discussion in Sub-section IV.A.
[136] ISO GUIDE 2, *supra* note 77, cl. 1.7.
[137] ISO DIRECTIVES, *supra* note 43, cl. 2.5.6.
[138] *Id.* cls. 2.6.2, 2.7.2.
[139] *Id.* cls. 2.6.3, 2.7.3.

document and to provide reasons for its rejection. The default choice for these MBs is thus either to vote "yes" (abstentions are excluded from the votes count) or to refrain from voting altogether.[140]

5. The Ease of Initiating New Technical Work

Another rule that might be disadvantageous to developing countries is the relative ease of adopting new fields of technical activity (i.e., the establishment of new TCs) and new work items (i.e., initiating work on new standards within existing TCs/SCs). Adopting new fields of technical activity is under the TMB authority, provided that a two-third majority of the MBs voting are in favor of the proposal and at least five of them have expressed their intention to participate actively in the technical work.[141] For adoption of new work items, as indicated above, it is sufficient that five P-members of the TC/SC undertake to actively participate in the development of the standard and nominate technical experts for this purpose, and that the proposal is approved by a simple majority of the TC/SC P-members.[142] This allows a small number of interested states (the approval criterion of five MBs/P-members remaining unchanged notwithstanding the continuous increase in the number of MBs) to initiate technical work and develop a new international standard that may subsequently have impact on other states as well. The relative ease of adopting new fields of technical activity has been particularly criticized in the context of the work on the ISO 14000 series, dealing with Environmental Management Systems (EMS). It has been argued that, while for developed countries this standardization work came as a response to existing activities and needs, for developing countries the standardization work preempted the existence of activities to be standardized and needs to be responded to. As a result, in the absence of interests and acquired expertise and experience, the participation of developing countries in the standardization process was very limited. Moreover, when developing countries already acknowledge the need of a new standard, they might find out that the rules have already been set by developed

[140] Similarly, Tamm Hallström reports in her research on the practice of many countries, particularly developing countries, to vote "yes" for new projects without having really thought it through. Tamm Hallström, *supra* note 30, at 101-102.

[141] ISO DIRECTIVES, *supra* note 43, cl. 1.5.1.

[142] *See supra* note 94 and accompanying text.

countries, not necessarily in a manner that accommodates their needs and with little room for change.[143]

6. Periodic Review of Standards

The above risk of exclusion of developing countries may be mitigated, albeit only partly, by the periodic review of existing standards. All ISO standards are reviewed, as a default action, at least every five years, to decide whether they should be confirmed (i.e., retained without change), revised/amended (i.e., retained with changes), or withdrawn.[144] More frequent reviews are possible at the initiative of the TC/SC secretariat, a MB, or the Secretary-General.[145] The purpose of this review mechanism is not only to ensure that ISO standards remain the state-of-the-art given the evolving technology, but also to ensure that they reflect a consensus among MBs given possible changes in their interests.[146] In this sense, the periodic review mechanism potentially promotes participation on a dynamic and continuous basis. MBs that did not participate in the original technical work, for reasons of lack of interest or resources, may have further opportunities to participate in the design of the standard and affect its content when interests evolve and resources become available. However, realization of these opportunities first entails that at least a majority of the TC/SC P-members voting share the view that the standard should be revised/modified (or withdrawn altogether), a prerequisite that might prove to be a too-difficult-hurdle to clear.

7. Appeals Mechanism

Another mechanism that is noteworthy here is the appeals mechanism common to all ISO standardization tracks. MBs have a "right of appeal" on decisions of a SC (to the parent TC), a TC (to the TMB), or the TMB (to the Council), within three months of the decision in question.[147] The cause of such appeals may be a deviation from ISO Statutes, Rules of Procedure or Directives, or if the decision is "not in the best interests of international trade and commerce, or such public factors as safety, health or

[143] R. KRUT & H. GLECKMAN, ISO 14001: A MISSED OPPORTUNITY FOR SUSTAINABLE GLOBAL INDUSTRIAL DEVELOPMENT 47-49 (1998).
[144] ISO DIRECTIVES (SUPPLEMENT), *supra* note 44, cl. 2.9.1.
[145] *Id.* cl. 2.9.1.
[146] *ISO Overview*, *supra* note 14.
[147] ISO RULES OF PROCEDURE cl. 5.9; ISO DIRECTIVES, *supra* note 43, cl. 5.1.1.

environment".[148] However, appeals against decisions on normative standardization documents (i.e., new work item proposals, committee drafts, draft international standards and final draft international standards) may be made only if "questions of principle" are involved, or when the content of the document "may be detrimental to the reputation of ISO".[149] The procedures for the consideration of, and decision on, appeals are not very elaborate, and leave much room for the discretion of the deciding instance.[150] Apparently, there is no obligation to grant an oral hearing to the appealing MB. Going up in the instances of appeal, there is a gradual move from the more technical level to the more political-policy level.

IV. STAKEHOLDER PARTICIPATION IN ISO STANDARDIZATION PROCESS

So far we have presented ISO's institutional features and fundamental principles, and reviewed the basics of its standardization process. Also, we initially pointed to principles, mechanisms and practices in the standardization process that might have bearings on the accountability of this process and on the legitimacy of ISO standards, particularly those concerning stakeholder participation in the standardization process. Understanding the extent to which relevant stakeholders are afforded voice and representation is one of the principal cornerstones of any accountable rule-making process, and seems to be essential also to the assessment of the accountability and legitimacy of transnational standardization. In the context of transnational standardization two aspects of participation should be examined. First, the participation of stakeholders from various interested sectors, such as industry, consumers, and governments. Second, given the transnational nature of the standardization process, is the participation of stakeholders

[148] ISO RULES OF PROCEDURE cl. 5.9; ISO DIRECTIVES, *id.* cl. 5.1.2.

[149] ISO DIRECTIVES, *id.* cl. 5.1.3.

[150] At the TC level, decision on the appeal against the action or inaction of a SC may be taken by correspondence or at a meeting, in consultation with the Secretary-General. *Id.* cl. 5.2.2. At the TMB level, the TMB, after receiving the comments of the Secretary-General, may decide whether to process the appeal or not. If a decision is made to process the appeal, a "conciliation panel" is established in order to hear the appeal and attempt to resolve the differences of opinion in a practical manner within a limited time. Only if the "conciliation panel" is unsuccessful in resolving the dispute the TMB makes a decision. *Id.* cls. 5.3.3-5.3.5. The Council decides on appeals against the TMB after receiving the Secretary-General's comments on the appeal. *Id.* cl. 5.4.

from various countries. These two aspects of participation will be at the focus of the present Section and the one that follows, respectively.

A. *ISO's Three-Level Model to Ensure Participation and Build Up Consensus*

National standardization processes are usually committed to ensuring wide participation of all stakeholders in the standardization process. With the gradual shift of standardization endeavors from the national level to the transnational level, concerns arise that the standardization process will not take into account the views of all interested parties, making the transnational standardization body less accountable and its international standards less responsive. Such concerns are aggravated when taking into consideration that the move to the transnational level *a priori* "dilutes" the relative influence of national interests, as the range of participants increases, including stakeholders from other states as well. It is thus interesting to explore whether, and to what extent, national stakeholders are afforded voice and representation at the transnational level of ISO standardization.

Wide participation of all interested stakeholders is presented as a core principle of ISO's standardization process. As indicated above,[151] it is directly derived from the consensus principle, defining the essence of the standardization process as "a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments…".[152] Similarly, the recently published ISO Code of Ethics, which highlights ISO's core principles, provides that MBs, in the development of ISO standards, are required to ensure "fair and responsive application of the principles of due process, transparency, openness, impartiality and voluntary nature of standardization" by "organizing national input… taking into consideration all relevant interest at national level" and by "taking appropriate measures to facilitate the participation of consumers and other affected parties from civil society…".[153] How, then, does ISO ensure that the "views of all parties concerned" are taken into account?

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[151] *See supra* text accompanying notes 79-82.

[152] ISO GUIDE 2, *supra* note 77, cl. 1.7.

[153] ISO, ISO CODE OF ETHICS (2004), http://www.iso.org/iso/en/aboutiso/ethics/ethics.html [hereinafter ISO CODE OF ETHICS]. The ISO Code of Ethics highlights ISO's core values by stipulating the obligations of the MBs and ISO Organs with respect to the development and implementation of

ISO seems to introduce a three-level model for the facilitation of participation. Arguably, this model is aimed at gradually building consensus among wide audiences, for the purpose of advancing the wide acceptance and use – hence also the effectiveness – of ISO standards.[154] According to this three-level model, at all stages of the ISO standardization debates input from domestic stakeholders should be first aggregated at the national level by the respective MBs into a uniform "national position", "taking into account all relevant interests".[155] This national position, in turn, is conveyed to the transnational level, where it is taken into account together with other national positions, until consensus is reached. MBs at this stage are responsible to advocate the position reflecting national consensus, and should take "appropriate measures to facilitate the participation of consumers and other affected parties from civil society, SMEs [small and medium-sized enterprises] and public authorities".[156] With the exception of stakeholders represented by liaison organizations, direct stakeholder participation (i.e., not through MBs' delegations), is not permitted, and domestic stakeholders have to rely on the good mediation of their respective MB.[157] Once the ISO standard has been approved, it is left for the national level to decide on its adoption (in governmental regulation or as a national standard) and implementation. As already observed above, the adoption of the TBT Agreement has narrowed the discretion that national governments and NSBs could actually exercise at this stage.

Engaging with various domestic stakeholders and taking their interests into account is thus primarily the responsibility of the MBs rather than of ISO's.[158] On its face, ISO's

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international standards, the maintenance of ISO's integrity and image, and the role of developing countries.

[154] *See, e.g.*, ISO DIRECTIVES, *supra* note 43, Foreword b), for a somewhat utilitarian justification of consensus: "Consensus… is an essential procedural principle and a necessary condition for the preparation of International Standards that will be accepted and widely used."

[155] *Id.* Foreword c), cl. 1.7.1; ISO CODE OF ETHICS, *supra* note 153.

[156] ISO CODE OF ETHICS, *id.* ISO/IEC, ISO/IEC GUIDE 59: CODE OF GOOD PRACTICE FOR STANDARDIZATION (1994), which is a voluntary code setting out good practices for standardization applicable to governmental and non-governmental consensus standards-setting bodies, employs a less permissive language, requiring that "[n]ational members ensure that their participation reflects a balance of national interests in the subject matter to which the international standardization activity relates". *Id.* cl. 6.3.

[157] For the sake of clarification, it is possible that in practice also individuals who are not MB personnel participate in the standardization process, but they could do so only as delegates of a particular MB.

[158] For an example of a similar approach taken by the Organization for Economic Cooperation and Development (OECD), in the context of the Common Approach on Export Credits negotiations, *see*

accountability thus accumulatively stems from the accountability of its MBs, each MB being accountable to its national stakeholders. However, it could be questioned whether the three-level model indeed guarantees wide stakeholder participation, given the worrying gap between the declaratory responsibilities of MBs and the role that ISO (i.e., ISO Organs and Officers) sees to itself in ensuring that these responsibilities are fulfilled in a satisfactory manner. Traditionally, ISO has shown great deference to the MBs and has not monitored their conduct to ensure that indeed all interests are taken into account at the national level, nor has it interfered in MBs' discretion to determine the composition of their delegations to technical committees.[159]

This approach of indifference on ISO's part is very troubling. At the national level, the "delegation" of the responsibility to provide participation to the MBs without any further monitoring by ISO of their actual practices might result in national positions that are captured by powerful stakeholders (usually from the business and industry sectors), to the detriment of less powerful stakeholders (e.g., consumers). Admittedly, MBs may be presumed to be well trained in aggregating various interests into a uniform national position, being the "most broadly representative of standardization in their respective countries".[160] Moreover, most MBs coming from WTO member countries have expressed their commitment to wide participation in standardization when they accepted the TBT Code of Good Practice mentioned above.[161] Nonetheless, the risk of having usual "winners" and "losers" at the national level is probable even in the case of MBs with a long tradition of standardization.[162]

James Salzman, *Decentralized Administrative Law in the Organization for Economic Cooperation and Development*, 68 L. & CONTEMP. PROBS. 189, 211, 221 (2005) [hereinafter Salzman (OECD)].

159 Interview with a NSB official (transcript on file with author). One could think of various ways to ensure that MBs genuinely engage with domestic stakeholders at the national level (for example, by requesting reports from MBs on their domestic practices, in general or with respect to a particular standardization work) and allow appropriate stakeholder representation at the transnational level (for example, by requesting that MBs' delegations to technical committees include representatives of specific interest groups). However, until very recently none of these ways have been taken.

160 ISO STATUTES art. 3.1.1.

161 The TBT Code of Good Practice imposes on NSBs strict "notice and comment" procedures prior to the adoption of national standards. TBT Agreement, *supra* note 7, Annex 3 paras. L-N.

162 The procedures of the American National Standards Institute (ANSI), for example, provide that in order to determine the U.S. position with respect to an ISO standardization activity and to participate in the technical work, a domestic standard-developing organization (SDO) is designated as a "U.S. Technical Advisory Group" (U.S. TAG), or, when no such SDO is available, a special body is established. In the process of developing U.S. positions, U.S. TAGs are required to "provide an opportunity for fair and

ISO has also traditionally refrained from interfering in MBs' discretion to determine the composition of their delegations to standardization debates at the transnational level. As indicated above, domestic stakeholders generally have no direct access to ISO technical committees, unless as delegates of their respective MB. Admittedly, the designation of MBs as a necessary intermediary between the national and transnational levels may potentially enhance wide and fair representation of stakeholders at the transnational level, as MBs may control the participation of relatively powerful interest groups to avoid disproportionate representation to the detriment of less powerful stakeholders. However, given the fact that non-MB personnel usually have to bear the costs of their own participation in ISO standardization activity, it is much easier for transnational corporations, for example, to ensure their participation than for consumer associations.[163]

The barriers to participation at the transnational level, both the structural one (i.e., the impossibility of direct participation) and the practical one (i.e., the cost of participation), work particularly to the detriment of relatively weak stakeholder groups. The influence of such groups is *a priori* diluted and their weight is *a priori* attenuated at the national level, where their interests are balanced with the interests of other stakeholder groups at the stage of building national consensus. Had they been afforded appropriate access to the transnational level, they could have been empowered by forming coalitions with comparable national interest groups from other countries. Left outside the transnational negotiations room, collective-action problems and lack of sufficient resources make it difficult for these groups to form transnational coalitions and influence transnational standardization. As opposed to weak stakeholder groups, the financial and organizational resources of powerful stakeholders, allow them to influence transnational standardization

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equitable participation without dominance by any single interest". ANSI, ANSI PROCEDURES FOR U.S. PARTICIPATION IN THE INTERNATIONAL STANDARDS ACTIVITIES OF ISO, Annex B: Criteria for the Development and Coordination of U.S. Positions in the International Standardization Activities of the ISO and IEC, sec. B4.2 (2005), http://public.ansi.org/ansionline/portal/search. Nonetheless, the U.S. TAG which was responsible for creating the U.S. position to the negotiations on ISO 14000 (dealing with Environmental Management systems (EMS)) was dominated by representatives from the chemical industry and heavy chemical users, with scarce representation of non-industrial interests (e.g., consumer and environmental groups). Roht-Arriaza, *Shifting the Point of Regulation*, supra note 9, at 524.

[163] To overcome this obstacle, MBs sometimes allow the participation of industry-sector representative in condition that the latter cover the participation costs of consumer representatives as well. Nonetheless, such schemes are subject to the good practice and capabilities of the particular MBs and are not centrally directed by ISO. Interview with a former NSB official (transcript on file with author).

through the various national consensus-building processes, through participation in national delegations, and through the establishment of liaison organizations that participate directly in the standardization process.[164] This is particularly true to transnational corporations (TNCs) that could magnify their influence by using their subsidiaries in other countries to influence the national positions of the respective ISO MBs.[165]

Finally, MBs are sometimes not only intermediaries but an interest group in and of itself, particularly MBs represented by NSBs of governmental nature. In those instances where governments also have an interest in the standardization activity, it is therefore likely that such MBs will be biased in favor of their governmental principals (or in favor of those interest groups that manage to capture the governmental principals).

On its face, the above concerns regarding the dominance of powerful stakeholders are not unique to the transnational standardization process but exist also with respect to national standardization. However, it seems that the move to the transnational level exacerbates these concerns, given the growing difficulty of domestic civil society to effectively monitor the standardization activity. First, the geographical and cultural distance between the transnational negotiations table and domestic civil society makes monitoring more complex. Second, since domestic civil society's representatives are frequently absent from the negotiations table, they have to rely on the good representation of their interests by the respective MB or its delegates. In the principal-agent relationships between domestic stakeholders (being multiple principals) and MBs' representatives to ISO negotiations (being agents), collective action problems are likely to thwart effective monitoring by civil society-principals, as opposed to well-organized principals, such as industry associations. Delegates in MBs' delegations are therefore generally expected to be more attentive to the interests of the latter, all the more so when they are employees or experts hired by corporations.[166] Finally, as already indicated, the

[164] For a similar observation, concerning the ability of powerful well-organized domestic interest groups to cooperate with similarly situated foreign interest groups in order to impose externalities on rival domestic groups, Benvenisti, *Exit and Voice*, *supra* note 9, at 169.

[165] Roht-Arriaza, *Shifting the Point of Regulation*, supra note 9, at 525.

[166] For an application of a principal-agent theory to standardization activity (in the area of accounting), with similar observations, *see* Mattli & Büthe (*Setting Standards in Accounting*), *supra* note 11, at 232,

move to the transnational level seems to empower already-powerful groups that use their financial and organizational resources to reproduce their influence.

B. *Activist Approach in Case of Social Responsibility (SR) Standardization*

One crack in ISO's general indifferent approach to MBs' conduct to ensure wide stakeholder participation has been recently noticed in the context of the development of ISO 26000 on Social Responsibility (SR). ISO 26000 will be an ISO standard aimed at providing organizations, private and public, with guidelines for social responsibility. It is not planned to be a specification document, intended for third-party certification (as opposed to ISO 9000 and ISO 14000), but to assist organizations in addressing their social responsibilities, by providing "practical guidance" related to "operationalizing social responsibility, identifying and engaging with stakeholders, and enhancing credibility of reports and claims made about social responsibility", and as a result to "increase confidence and satisfaction in organizations among their customers and other stakeholders".[167] The initiative to have an ISO standard on social responsibility originated in ISO's Committee on Consumer Policy (COPOLCO) in 2001 and was later endorsed by the TMB. A new work item proposal was approved in 2005 and work on the development of the new standard has begun in a new WG (WG SR), co-led by the NSBs of Brazil and Sweden, that answers directly to the TMB.[168] ISO 26000 is expected to be published in 2008.

The case of ISO 26000 is very revealing in light of several adjustments to ISO procedures that were applied to the standardization process.[169] Among these adjustments

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259 (note, however, that the "agent" in their analysis is the standardization body itself, rather than the national delegates to the standardization body).

167 ISO, *Social Responsibility: About the Standard*, http://isotc.iso.org/livelink/livelink/fetch/2000/2122/830949/3934883/3935096/07_gen_info/aboutStd.html [hereinafter *ISO Standard on Social Responsibility*].

168 *Id.*

169 The TMB decision to establish a WG on social responsibility was preceded by an establishment of an Advisory Group on Social Responsibility (SR), which was tasked to recommend whether ISO should proceed with the development of normative documents in the field of social responsibility, and if so, to determine the scope of the work and the type of documents. Among the recommendations submitted by the Advisory Group was the recommendation that ISO should proceed with the development of documents in the area of social responsibility only if "ISO reviews its processes and where necessary makes adjustments to ensure meaningful participation by a fuller range of interested parties". ISO/TMB AG CSR N32, *Recommendations to the ISO Technical Management Board* (Apr. 30, 2004) (on file with author).

is the guidance provided by the TMB to the MBs regarding stakeholder participation in the standardization process, both at the national and transnational levels.[170] The TMB requires that representation in the standardization process be organized in six stakeholder categories: consumers, government, industry, labor, NGO, and "service, support, research and others". Clear definitions of the individuals or organizations that may participate under each category of stakeholders are also provided. MBs are expected to ensure the participation of representatives from these stakeholder categories both at the transnational level, in their national delegations to the standardization process, and at the national level, in "national mirror committees" that will follow the standardization process and formulate the national position in critical stages. With respect to consumer participation, in order to ensure effective representation the TMB further defines the tasks that are under the responsibilities of consumer representatives (e.g., promotion of dialogue on social responsibility at the national level, and membership in task groups and participation in meetings at the transnational level).

The activist approach taken by the TMB in the case of social responsibility standardization is very recent and unprecedented so far. Among other things, it is probably a corollary of the contested nature of the subject-matter of the standardization process, in particular those aspects of it dealing with corporate social responsibility (CSR). Issues such as corporate responsibility to environmentally harmful production processes, or standards of fair labor are the cause for politically heated debates. Moreover, while in many other fields ISO enjoys exclusiveness, in the area of corporate social responsibility there is an abundance of activity, from industry self-regulation codes of good conduct to ILO international treaties.[171] By seeking to standardize a subject-matter that occupies an important place on the radar screens of civil society, ISO risks harsh criticism that might undermine its legitimacy. It thus seems particularly important for ISO to take measures that would enhance the legitimacy and credibility of its processes.[172]

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[170] ISO/TMB/WG SR N 48 rev. 1, *Guidance on Stakeholder Categories in the ISO/TMB/WG SR* (Sep. 30, 2005).

[171] For the impact of the standardization environment in which ISO operates, *see infra* Sub-Section VI.C.

[172] Interview with a NSB official (transcript on file with author).

Another way in which ISO enhances the participation of weak stakeholder groups in the standardization process is by empowering them and giving them voice at the transnational level, irrespective of their representation in MBs' delegation. These endeavors will be discussed in the next Sub-Section.

C. *Empowering Consumers*

Consumers are one of the central groups of stakeholders in standardization, international standardization included. It is thus especially interesting to examine the extent of their participation in the international standardization work in ISO. A "consumer", for ISO purposes, is "an individual member of the general public, purchasing or using goods, property or services, for private purposes".[173] In light of this definition, many international standards are not directly relevant to consumers, such as product standards regarding the components of some industrial equipment or service standards affecting only service professionals. The end-users in these cases are not from the general public.[174] However, in many other cases standards are highly relevant to consumers, for example, standards affecting the safety of products (e.g., standards for child restraints and toys), or the quality and reliability of services (e.g., standards for tourism and financial services).

The story of consumer participation in ISO is a story of constant evolution. In the first years of ISO there was no particular reference to consumers as a group with special interests in the standardization process. ISO Statutes, for example, while highlighting the object of facilitating international trade and developing cooperation in the spheres of intellectual, scientific, technological and economic activity, do not mention the protection of consumers as one of the goals of standardization.[175] At least part of the reason for this approach was the fact that in early years, industry was not only the producer of the products covered by ISO standards but also the main user of them.[176]

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[173] ISO/IEC/GEN 01:2001, ISO/IEC Statement on *Consumer Participation in Standardization Work*, Annex to Council vote 05/2001 [hereinafter Statement on Consumer Participation].

[174] ISO, ISO AND THE CONSUMER (2005) [hereinafter ISO AND THE CONSUMER].

[175] ISO STATUTES art. 2.1.

[176] Raymond Frontard, *Standards-Related Activities*, *in* FRIENDSHIP AMONG EQUALS: RECOLLECTIONS FROM ISO'S FIRST FIFTY YEARS, *supra* note 22, at 45, 46.

This has changed along the years. As ISO started developing standards for products and services that had direct impact on consumers, consumers demanded that their needs be taken into account in ISO's work.[177] In 1964 the Council passed a resolution stating the desire to promote consumer participation in recognition of "the wish for consumers at national and international level for greater involvement in the framing of decisions affecting their interests".[178] While ISO Statutes remained unchanged in this regard, various bodies were established within ISO in order to better respond to consumer needs, until the Council decided in 1977 to establish the ISO Committee on Consumer Policy (COPOLCO), which convened for the first time in 1978.[179]

COPOLCO does not develop standards. Rather, it serves as a policy forum, bringing consumer insight into ISO's policy. Its objectives are to help consumers benefit from standardization, to facilitate the exchange of information and experience on standardization work of consumer interest, to advise the ISO Council on new and potential areas of standardization work, and to advise on policies and actions within ISO as they relate to consumer needs.[180] Membership in COPOLCO is open to all MBs and Correspondent Members, and presently counts more than 80 members (both P-members and O-members), comprising either NSBs or consumer organizations mandated by NSBs.[181] In addition, COPOLCO maintains official liaison with organizations such as Consumers International (CI) and the Organization for Economic Cooperation and Development (OECD).[182] As in other ISO fora, participation in COPOLCO is at the

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[177] Dana Kissinger, *A journey through COPOLCO's first 25 years*, ISO BULLETIN 32, 33 (Aug. 2003).

[178] ISO Council Res. 48/1964 (1964).

[179] Initially, consumer needs were addressed by the already-existing ISO/TC 73 that was re-entitled "Consumer Questions". Frontard, *supra* note 176, at 45. In order to enhance cooperation with consumers, ISO and IEC established in 1968 the International Standards Steering Committee on Consumer affairs (ISCA) that provided a forum where representatives from consumer organizations could advise ISO and the IEC on priorities for the international standardization work. *Id.* at 46. However, given the horizontal and policy-oriented nature of consumer problems, ISO/TC 73 recommended in 1975 that a different structure within ISO be considered. This led to the Council's decision in 1977 to establish COPOLCO. Kissinger, *supra* note 177, at 33.

[180] Kissinger, *id.* at 33; ISO, *Consumer issues*, http://www.iso.org/iso/en/comms-markets/consumers/iso+theconsumer-03.html [hereinafter *Consumer Issues*].

[181] *Consumer Issues*, *id.*; ISO, YOUR VOICE MATTERS: WHY CONSUMERS NEED TO PARTICIPATE IN STANDARDS-MAKING AND HOW TO GET INVOLVED 6 (2003), http://www.iso.org/iso/en/prods-services/otherpubs/pdf/copolcoyourvoicematters_06-en.pdf [hereinafter YOUR VOICE MATTERS].

[182] *Consumer Issues*, *id.*

expense of its members. ISO, however, provides the funding for the COPOLCO secretariat.[183]

COPOLCO's main concern along the years has been to enhance consumer participation in the standardization work – both at the national and at the international levels. At the international level, it has done so through identifying areas of priority interest to consumers in ISO's work and then promoting consumer representation in the relevant technical committees.[184] Such consumer representation may be achieved either through the participation of consumer representatives in MBs' delegations or through the participation of international consumer associations, namely Consumers International (CI) and ANEC (the European Association for the Co-ordination of Consumer Representation in Standardization).[185] To facilitate the participation of consumer representatives in ISO's technical work, proposals for a new field of technical activity (i.e., proposals for a new TC) or for a new work item (i.e., proposals for a new standard within an existing TC/SC) should highlight the "main interests that might benefit from or be affected by the [standardization] activity", for example, consumer interests.[186]

To enhance consumer participation at the national level, COPOLCO initiated the ISO/IEC Statement on Consumer Participation in Standardization Work, which was initially published in 1979 and then revised in 2001.[187] The joint policy statement

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[183] Para. 4.2.3 in ISO, COPOLCO, WORKING GROUP ON CONSUMER PARTICIPATION, ESTABLISHMENT OF FUNDING MECHANISMS, BENCHMARKING AND MONITORING TO SUPPORT CONSUMER REPRESENTATION IN STANDARDIZATION, Annex to COPOLCO 16/2006, Agenda Item 9 (April 2006) (on file with author) [hereinafter COPOLCO WG ON CONSUMER PARTICIPATION, 2006 report].

[184] Among the work areas currently identified as areas of priority interest to consumers are house-hold appliances (issues related to safety and performance); services (generic guidelines, tourism, financial services, water supply and wastewater disposal); fire safety; second-hand goods; products, services and environments for elderly and people with disabilities; environmental issues (EMS, energy saving, climate change); water safety (drowning prevention); contraceptive devices; bicycles; furniture; graphical symbols and public information systems; global marketplace issues (codes of conduct, complaints handling, dispute resolution systems, privacy, e-commerce and social responsibility); child-related products; and health informatics. ISO AND THE CONSUMER, *supra* note 174.

[185] YOUR VOICE MATTERS, supra note 181, at 6. Among the TCs in which CI and ANEC currently participate are TC 207 (ISO 14000 series), TC 176 (ISO 9000 series), TC 157 (Mechanical Contraceptives), and TC 181 (Safety of Toys). ANEC, *About ANEC: ANEC Representation in European and International Standards Organizations*, http://www.anec.org/attachments/List1.pdf; CI, *Technical Standards – Technical Committees*, http://www.consumersinternational.org/Templates/News.asp?NodeID=91862&int1stParentNodeID=89651&int2ndParentNodeID=90419.

[186] ISO DIRECTIVES, *supra* note 43, Annex C cls. C.4.3, C.5.3.1.

[187] Statement on Consumer Participation, *supra* note 173.

emphasizes the importance of consumer participation in the standardization process, and acknowledges the difficulties consumers face in attempting to do so. It then makes various recommendations to MBs aimed at promoting greater consumer participation. The ISO Code of Ethics also calls on MBs to take "appropriate measures to facilitate the participation of consumers".[188]

As part of its indirect efforts to enhance consumer participation, COPOLCO is also engaged in developing various publications, training consumer representatives, and organizing annual international workshops that focus on one consumer-oriented theme each time. The recommendations resulting from these workshops have generated so far new standardization work in areas such as Environmental Management Systems (EMS, the ISO 14000 series), services (e.g., standardization in tourism and financial services), "customer service", and social responsibility.[189] This way, consumer input is provided not just in response to industry and businesses initiatives, but also in order to launch standardization work in areas which are of particular interest to consumers, influencing the agenda of ISO's standardization work.

Nonetheless, it continues to be difficult for consumers to participate in ISO's technical work, and ISO has been criticized for not implementing the recommendations that it made to MBs in the Statement on Consumer Participation in Standardization Work to its own standardization activity.[190] This difficulty is ascribed primarily to the fact that consumer representatives can not participate directly in ISO's technical work, but have to rely on their respective MBs to include them in "national mirror committees" and in national delegations to ISO. As recent surveys demonstrate, participation in national delegations to ISO is far from being satisfactory.[191] This situation of consumer under-representation is mitigated only a little by the participation of international consumer associations in the technical work, given the resource challenges they are faced with and

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[188] ISO CODE OF ETHICS, *supra* note 153.

[189] ISO AND THE CONSUMER, *supra* note 174; Kissinger, *supra* note 177, at 34-35; ISO, *Consumer Issues*, *supra* note 180.

[190] Bruce J. Farquhar, Consumers International (CI), *Governance in the International Organization for standardization (ISO) and the International Electrotechnical Commission (IEC), in* DECISION MAKING IN THE GLOBAL MARKET: TRADE, STANDARDS AND THE CONSUMER 45, 60-62 (2005), http://consint.live.poptech.coop/Shared_ASP_Files/UploadedFiles/1E6FE541-9535-4E43-A86E-D7F66DE4728A_GlobalGovernancefinalpdf.pdf [hereinafter *Consumers International Report*].

[191] *See id.* at 57 for references to Consumers International (CI) and European Commission surveys.

the fact that their status as liaison organizations does not confer upon them any voting rights.[192] In light of these difficulties, calls have been voiced to allow direct participation in ISO for consumers (and other disadvantaged stakeholders), whose voice might be easily lost at the national level in the drive for national consensus.[193]

These calls have not remained unattended by ISO. In 2004 COPOLCO established a Working Group (WG) on Consumer Participation to examine currently existing practices governing stakeholder participation and to develop a series of recommendations for enhancing consumer participation in ISO.[194] The agenda of this WG has been very much informed by the ISO Strategic Plan 2005-2010, which was approved by ISO GA shortly afterwards, and that highlights as one of its seven key-objectives for 2010 the objective of "[e]nsuring the involvement of stakeholders".[195] One of the actions prescribed by the ISO Strategic Plan as required in order achieve this key-objective, and which has been taken on by the COPOLCO WG, is the investigation of funding mechanisms to support the participation in international standardization of under-represented groups, such as consumers.[196] Among the proposals that have been raised so far, is the establishment of a COPOLCO Funds-in-Trust, whereby consumer and other public interest representatives could apply for and receive funding to participate in standardization.[197] Funding mechanisms are also investigated by the working group on Social Responsibility (WG

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[192] *Id.*; PUBLIC CITIZEN, HARMONIZATION 2004 GUIDEBOOK: GLOBAL STANDARD-SETTING IN INTERNATIONAL TRADE 21, 22 (2004), http://www.citizen.org/documents/Harmonization%202004%20Guidebook.pdf [hereinafter PUBLIC CITIZEN GUIDEBOOK]. *See infra* Sub-Section IV.D. for discussion of direct participation of civil-society NGOs in ISO standardization process as liaison organizations.

[193] *Consumers International Report*, *id.* at 59-59, 65.

[194] The decision on the establishment of the WG was made in parallel with the writing of Consumers International's (CI) report on consumer participation (*id.*). The author of the report, Bruce Farquhar, was nominated as the WG's chairperson. Interview with a NSB official (transcript on file with author).

[195] ISO, ISO STRATEGIC PLAN 2005-2010: STANDARDS FOR A SUSTAINABLE WORLD key-objective 2 (2004), http://www.iso.org/iso/en/aboutiso/strategies/isostrategies_2004-en.pdf [hereinafter ISO STRATEGIC PLAN 2005-2010]. The ISO Strategic Plan was approved unanimously by the ISO GA at its 27th meeting in Geneva on 15-16 September 2004.

[196] *Id.* key-objective 2, action d; COPOLCO WG ON CONSUMER PARTICIPATION, 2006 report, *supra* note 183, paras. 4, 5.2.

[197] COPOLCO WG ON CONSUMER PARTICIPATION, 2006 report, *supra* note 183, para. 4.4.2. A similar fund, in support of developing countries, is already managed by ISO Committee on Developing Country matters (DEVCO). *See infra* text accompanying note 345.

SR) mentioned above, in its strategic Task Group on funding and stakeholder engagement (TG 1).[198]

D. *Direct Civil Society-NGO Participation*

Consumers, addresses in the previous Sub-Section, are a public-interest stakeholder group that has traditionally had interest in ISO standardization process. However, it is not the only one. As the scope of ISO standards expands to encompass more and more subject-matters of public interest, additional stakeholder groups from civil society wish to influence the standards developed and take part in the standardization process. The identity of such stakeholder groups, usually represented by NGOs,[199] varies according to the subject-matter of standardization, from the environment and sustainable-development to fair labor and corporate social responsibility.

As mentioned above, one avenue for such NGOs to influence the development of standards is through their respective NSBs, either at the national level (by taking part in national mirror committees or through comparable applicable procedures), or at the transnational level (as members of the national delegation to ISO), or both. However, despite the potential advantages of this avenue – particularly the absence of language barriers and relative low costs of participation – it also has limitations. NSBs vary in the effectiveness of their national consensus-building processes. For instance, not all NSBs have followed the "understanding" indicated by ISO Central Secretariat that MBs should set up national mirror committees, and diverse opinions are not always taken into account.[200] Even if minority opinions are considered at the national level, they risk being overwhelmed by powerful stakeholders in national mirror committees, or being

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[198] ISO, *Social Responsibility: Organization*, http://isotc.iso.org/livelink/livelink/fetch/2000/2122/830949/3934883/3935096/04_organization/org_str.html.

[199] The use of the term "NGOs" here refers only to non-profit associations that operate independently of government or business structures for non-commercial objectives. This definition thus excludes, for example, various industry associations that have interest in the standardization process for the promotion of industry objectives.

[200] ISO/TC 207 ENVIRONMENTAL MANAGEMENT, NGO TASK GROUP, A GUIDE FOR NGO PARTICIPATION IN ISO/TC 207, at 9, ISO/TC 207/NGO-TG N20 (2002), http://inni.pacinst.org/inni/NGOParticipation/NGOGuideTC207.pdf [hereinafter A GUIDE FOR NGO PARTICIPATION IN ISO/TC 207]; ISO/TC 207 ENVIRONMENTAL MANAGEMENT, NGO TASK GROUP, INCREASING THE EFFECTIVENESS OF NGO PARTICIPATION IN ISO TC 207, at 10, ISO/TC 207 N590 Rev (2003), http://inni.pacinst.org/inni/NGOParticipation/N28Final.pdf [hereinafter ISO/TC 207 NGO TASK GROUP REPORT].

completely lost when MBs communicate a unified national position at the transnational level.[201] In addition, MBs are not always represented in each ISO technical forum, due to lack of sufficient resources or simply in the absence of a broader national interest. Even if they are represented, their respective national delegations often lack balanced stakeholder representation, either for reasons related to the respective MB's policy or due to resource constraints faced by NGOs. For all these limitations, it is thus sometimes more favorable for NGOs to participate directly in ISO standardization process as liaison organizations.

The status of "liaison organizations" was not specifically tailored to allow the participation of civil-society NGOs. It is intended to allow non-MB organizations with interest in a particular area of ISO's technical work – even business interest – to participate and make a contribution to, or at least to be informed of, the technical work. Such organizations may range from other standard-developing bodies (SDOs), through industry-oriented professional associations and scientific societies, to NGOs from civil society. The rationale behind the recognition of liaison organizations, from ISO's standpoint, could be inferred from the guidance in ISO Directives to TCs/SCs to "seek the full and, if possible, formal backing of the organizations having liaison status for each document in which the latter is interested".[202] Presumably, the cooperation with these liaison organizations and their subsequent endorsement of ISO standards are acknowledged to enhance the legitimacy of the standards and thus to promote their wide acceptance.

ISO Directives distinguish between several categories of liaison organization status, that differ from each other in the type of organizations that qualify for the status, the privileges attached to it, and the level of technical work in which the organization is allowed to participate. Common to all categories, though, is the lack of a voting right that is exclusively rendered to MBs. Category A and Category B liaisons allow liaison at the TC/SC level. These categories are open to "international or broadly based regional organizations working or interested in similar or related fields" as a particular TC/SC.[203]

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[201] A GUIDE FOR NGO PARTICIPATION IN ISO/TC 207, *id.* at 9; ISO/TC 207 NGO TASK GROUP REPORT, *id.* at 11.

[202] ISO DIRECTIVES, *supra* note 43, cl. 1.17.2.2. This requirement applies to Category A and Category B liaisons only, as explained below, and not to Category D liaison.

[203] *Id.* cl. 1.17.2.2.

Another criterion, which is expected to be approved soon by the TMB, is that the applying organization should be a not-for-profit legal entity.[204] Category A gives the liaison organizations rights to be invited to TC/SC meetings, to nominate experts to participate in WGs, and to receive relevant documentation.[205] Category B includes organizations that wish to be kept informed of the work of the TC/SC and are thus sent reports on the technical work.[206] Category D liaison, a relatively recent addition, allows for participation at the WG level only, for organizations that are willing to make a contribution and participate actively in the work of the WG.[207] This category may include also private interest groups, such as manufacture and commercial associations, industrial consortia, user groups, and professional and scientific societies.[208] However, they should also embody somewhat public features, namely being "multinational (in their objectives and standards development activities) with individual, company or country membership" and having "a sufficient degree of representativity within a defined area of competence within a sector or sub-sector of a relevant technical or industrial field".[209] All liaison organizations may submit new work item proposals.[210] When proposals for a new field of technical activity (i.e., new TC) or for a new work item (i.e., new standard) are submitted, they should list any relevant organizations or bodies with which liaison should exist.[211] The desirability of liaison should be taken into account at an early stage of the work.[212]

Despite the access that the status of liaison organization provides to NGOs to the standardization table, at least formally, NGOs have argued that it was not sufficient to provide a fair opportunity to effectively participate in the standardization process and influence its products. These arguments have grown particularly strong in the context of the development of the ISO 14000 standards series, dealing with environmental management tools and systems, under the umbrella of ISO/TC 207 Environmental Management established in 1993. Apparently, it is the subject-matter of this

[204] ISO, TMB business plan: Liaisons, Annex 3 to TMB 5/2006, February 2006 (on file with author) [hereinafter TMB Draft Resolution on Liaisons].
[205] ISO DIRECTIVES, *supra* note 43, cl. 1.17.2.1.
[206] *Id.*
[207] *Id.* cl. 1.17.3.1.
[208] *Id.* cl. 1.17.3.2.
[209] *Id.* cl. 1.17.3.1.
[210] *Id.* cl. 2.3.2.
[211] *Id.* Annex C, cls. C.4.6.1, C.5.6.
[212] *Id.* cl. 1.17.1.

standardization endeavor, the environment, with its broad policy implications and its being particularly abounded with NGO activity, that made ISO 14000 standardization especially susceptible to NGOs' criticism.

ISO 14000 is a family of ISO standards, all concerned with environmental management.[213] Their goal is to provide organizations – usually corporations – with a framework for managing their environmental issues in all aspects of the organization's activities, including product development, process design, production and packaging, with the aims of minimizing harmful effects on the environment and achieving continual improvement of the organization's environmental performance. ISO 14000 standards are "management system" standards, namely standards that focus on the organizational processes of the organization, rather than on their outcomes (be it products or services) or on their environmental impacts.[214] As opposed to the vast majority of ISO standards, which are intended to apply to a particular product, material or process, ISO 14000 standards could thus be applied to any organization, large or small, whether it is a business enterprise, a public administration or a governmental agency, whatever its products are.

It is particularly this generic and flexible character of ISO 14000 standards that has raised concerns among environmental NGOs. Because these standards do not prescribe emission levels or require actual improvement in environmental performance, enterprises could be certified to ISO 14001 simply by developing an environmental management system and striving to make continual improvement in their environmental performance, without actually making any such improvement. This may lead to corporate "green-

[213] The brief overview of the ISO 14000 family contained in this paragraph is based on KRUT & GLECKMAN, *supra* note 143, at 9-15; ISO, ENVIRONMENTAL MANAGEMENT: THE ISO 14000 FAMILY OF INTERNATIONAL STANDARDS (2002), http://www.iso.org/iso/en/prods-services/otherpubs/iso14000/index.html; ISO, *ISO 9000 and ISO 14000 – in brief*, *at* http://www.iso.org/iso/en/iso9000-14000/understand/inbrief.html.

[214] The cornerstone of the ISO 14000 family is ISO 14001. It outlines the criteria for an environmental management system (EMS) by prescribing how an enterprise should manage and control its organizational system, so that it measures, controls and continually improves the environmental aspects of its activities. This is the only standard in the family against which an enterprise can be certified by a third party. Other standards in the ISO 14000 family provide additional guidance and explanations to complement ISO 14001. Some focus on production processes, covering concerns such as environmental auditing (EA) and environmental performance evaluation (EPE), and others address the environmental aspects of the products and services themselves, providing guidance, *inter alia*, on environmental labeling and life-cycle analysis (LSA). *Id*.

washing", benefiting corporations that are certified to ISO 14001 even if they do not improve their performance, while obscuring the achievements of those corporations that actually make an improvement.[215] Furthermore, NGOs and scholars have been concerned that ISO 14000 standards, which are generally less stringent and less intrusive than national regulation or international treaties (given the consensus process and the strong involvement of industry), would be used in lieu of the latter or at least impede their development, thus eroding NGOs' achievements over the years.[216] In light of the above, once NGOs have realized the actual and potential impact of ISO 14000 standards they have striven to participate in their development.[217]

The evolution of NGO involvement in ISO 14000 development is very telling. Environmental NGO involvement in ISO 14000 first initiated at the national level. In the United States this was in response to the invitation extended in 1994 by the U.S. Technical Advisory Group (TAG) to public interest organizations to participate in its activities.[218] Several yeas elapsed before U.S. NGOs jointly developed a strategy for effective participation, which led to the formation of a U.S. NGO Working Group aimed at facilitating networking around ISO 14000's development and implementation.[219] Significant environmental NGO involvement was extended to the transnational level only in 1998 (after several ISO 14000 standards, including ISO 14001, had already been published), when NGOs first met with the ISO/TC 207 leadership.[220] Following the concerns raised by the NGOs about the environmental impacts of ISO 14000 and their expressed desire to participate in its development, ISO/TC 207 formed an NGO Contact

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[215] ECOLOGIA, *ISO 14000 Fact Sheet for NGOs*, *at* http://www.ecologia.org/ems/iso14000/resources/factsheets/iso14000.html.

[216] *Id.*; INNI, *ISO Already affects Environment*, *at* http://inni.pacinst.org/inni/#ISOAlready; Roht-Arriaza, *Soft Law*, *supra* note 31, at 264, 271-275. To demonstrate the preemptive nature of ISO 14001, Roht-Arriaza cites reports observing the turn away of European manufacturers form the European Eco-Management and Audit Scheme (EMAS) in favor of the less demanding ISO 14001. *Id*. at 272.

[217] Because the development of ISO 14000 standards is not a harmonization endeavor of existing national standards and practices, but rather an *ex ante* standardization, it was initially difficult for NGOs to assess the full potential impact of these standards. Therefore, it took time before NGOs realized that this standardization endeavor justified the resources involved with participation in it.

[218] ECOLOGIA, *NGO Involvement in the ISO 14000 standards Development and Implementation*, *at* http://www.ecologia.org/ems/iso14000/ngoinvolve/index.html [hereinafter ECOLOGIA, *NGO Involvement*].

[219] *Id*.

[220] *Id*.; ISO/TC 207 ENVIRONMENTAL MANAGEMENT, NGO CONTACT GROUP, DISCUSSION PAPER, ISO/TC 207 N418 (2000), http://www.ecologia.org/ems/iso14000/ngoinvolve/st_n418.html [hereinafter NGO CONTACT GROUP DISCUSSION PAPER].

Group to investigate NGOs' concerns.[221] The NGO Contact Group conducted a survey among NSBs and NGOs to determine the extent of, and the barriers to, effective NGO participations.[222] It was later tasked to jointly produce with NGOs a "discussion paper" that would further the understanding of NGO issues and seek avenues for enhancing their participation.[223] The "discussion paper" and a "summary report" subsequently led to the establishment of an ISO/TC 207 NGO Task Group in 2001, to develop recommendations to expand and enhance NGO participation in ISO 14000 development.[224] The NGO Task Group, comprised of representatives from both MBs and NGOs and chaired by an NGO representative, operated from 2001 until 2003 and produced two key documents: "A Guide for NGO Participation in ISO/TC 207"[225] and a report entitled "Increasing the Effectiveness of NGO Participation in ISO TC 207".[226] In 2003 the NGO Task Group was disbanded and an NGO-Chairman's Advisory Group (CAG) Task Force was created to review and recommend on the implementation of it predecessor's recommendations.[227] The NGO-CAG Task Force consists of four CAG representatives and four NGO representatives, and is chaired by an NGO representative.[228] In parallel, the NGOs participating in ISO/TC 207 established an NGO Forum to organize NGO input into the NGO-CAG Task Force and to address other NGO matters.[229] In 2004 the NGO-CAG Task Force submitted an interim report that included several proposals for the enhancement of NGO participation, which constituted "phase 1" of a broader, longer-

[221] ISO/TC 207, Resolution 207 – 21/1998, http://www.ecologia.org/ems/iso14000/ngoinvolve/tc207resolution.html.
[222] NGO CONTACT GROUP DISCUSSION PAPER, *supra* note 220.
[223] ISO/TC 207, Resolution 207 – 20/1999.
[224] NGO CONTACT GROUP DISCUSSION PAPER, *supra* note 220; ISO/TC 207 ENVIRONMENTAL MANAGEMENT, NGO CONTACT GROUP, SUMMARY REPORT to the ISO/TC 207 CAG, ISO/TC 207 N419 (2000), http://www.ecologia.org/ems/iso14000/ngoinvolve/st_n419.html.
[225] A GUIDE FOR NGO PARTICIPATION IN ISO/TC 207, *supra* note 200.
[226] ISO/TC 207 NGO TASK GROUP REPORT, *supra* note 200.
[227] ECOLOGIA, *NGO Involvement*, *supra* note 218.
[228] MARI MORIKAWA & JASON MORRISON, PACIFIC INSTITUTE, WHO DEVELOPS ISO STANDARDS?: A SURVEY OF PARTICIPATION IN ISO'S INTERNATIONAL STANDARDS DEVELOPING PROCESSES 18 n.27 (2004), http://inni.pacinst.org/inni/NGOParticipation/NGOParticipationStudy.pdf [hereinafter PACIFIC INSTITUTE'S SURVEY OF PARTICIPATION].
[229] ECOLOGIA, *NGO Involvement*, *supra* note 218.

term work plan.[230] These proposals were approved by a large majority of ISO/TC 207 P-participants and currently undergo implementation.[231]

Among the proposals made by the NGO-CAG Task Force and adopted by ISO/TC 207 is the establishment of attendance lists of participants in meetings of ISO/TC 207 and its subsidiary bodies, according to attendees' organizational affiliations and type of stakeholder group.[232] The lists, to be kept by the ISO/TC 207 secretariat, are intended to facilitate tracking of stakeholder participation and enhance transparency respecting the participants' affiliations. This, in turn, will enable ISO and its MBs to evaluate the degree to which input from all stakeholders is obtained. In subsequent stages of the work plan this tracking scheme may be applied to national processes relating to ISO/TC 207 as well.[233] Another proposal that was approved was to require MBs to make an effort to have balanced stakeholder representation at the transnational level, particularly at WG meetings.[234] Obviously, these steps are expected to benefit not only NGOs, but also other disadvantaged stakeholder groups.

It is noteworthy that not all ISO/TC 207 members supported these proposals (i.e., regarding attendance lists according to stakeholder affiliation and the requirement for balanced stakeholder representation in MBs' delegation to ISO). Although approved by a large majority, several P-members, from both developed and developing countries voted against these proposals. The justifications that they provided in support of their negative votes are interesting, as illuminating their perspectives on the interaction between the national and transnational levels of standardization and the different concerns of developed and developing countries. On the side of developed countries, leading ISO MBs, from France, the United Kingdom, Germany (all of them Council and TMB members) and Switzerland voted against these proposals (as for the rest of the Council and TMB members - the United States voted in support of these proposals and Japan

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230 ISO/TC 207 NGO-CAG Task Force, Interim Report: Phase 1 of Workplan, ISO/TC 207 N699 (2004), http://inni.pacinst.org/inni/NGOParticipation/TC207NGOWorkplanPhase1.doc [NGO Workplan].

231 INNI, ISO/*TC 207 Approves Workplan to Improve NGO Participation*, INNI, Jan. 18, 2005, *at* http://inni.pacinst.org/inni/NGO.htm#ApprovesWorkplan; ISO/TC 207 N 708 Compilation of the results of voting on Proposals per ISO/TC 207 Plenary Resolutions (14/2004), http://inni.pacinst.org/inni/NGOParticipation/N708Ballot%20Results.pdf.

232 NGO Workplan, *supra* note 230, Proposal 4.

233 *Id*.

234 *Id*.

abstained).[235] These MBs were concerned with the blurring of what they called the "national representation" or the "national delegation" principle, namely, that the delegates of MB delegations are required to present a national position, rather than the position of the sector to which they belong.[236] The appropriate way for NGOs to participate in the standardization process is therefore primarily through the national mirror committees (the effectiveness of which is dependent on the preservation of the "national representation" principle) and also as liaison-organization experts in WGs. Monitoring of balanced representation is therefore justified only at the WG level, where experts are expected to express their personal views. The MBs from developing countries that objected these proposals – Brazil, Colombia and Zimbabwe – also supported the notion that the emphasis on balanced stakeholder representation should be limited to the national level, but for different reasons. They highlighted the financial difficulties faced by MBs and NGOs from developing countries to participate in international standardization. For these reasons, balanced representation cannot be achieved in national delegations from developing countries that usually comprise of one to two delegates. If such requirement is imposed notwithstanding, it would work to the detriment of developing countries.[237]

Other recommendations on ways to improve NGO participation that have not yet been adopted by the NGO-CAG Task Force include a recommendation to consider extending to liaison organizations the right of appeal.[238] As indicated above, a right of appeal against TC/SC decisions is afforded to MBs only.[239] Extending this right to liaison organizations as well could empower the stakeholder groups that they represent, by this enhancing the accountability of TCs and SCs. The need for a concrete mechanism at the

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[235] ISO, TC 207, Compilation of the results of voting on Proposals per ISO/TC 207 Plenary Resolutions (14/2004), ISO/TC 207 N 708 (2004), http://inni.pacinst.org/inni/NGOParticipation/N708Ballot%20Results.pdf.

[236] *See*, in particular, the comments on Proposal 4 provided by the MBs of France, United Kingdom and Germany. ISO, TC 207, Compilation of the results of voting on Proposals per ISO/TC 207 Plenary Resolutions (14/2004), ISO/TC 207 N 708 Comments (2004), http://inni.pacinst.org/inni/NGOParticipation/N708Comments.doc.

[237] *Id*.

[238] ISO/TC 207 NGO TASK GROUP REPORT, *supra* note 200, sub-section 4.2.3; *Consumers International Report*, *supra* note 190, at 56.

[239] *See supra* text accompanying notes 147-150.

TC/SC level to seek formal backing of liaison organization has also been highlighted.[240] As mentioned above, ISO Directive require that TCs and SCs seek the "full and, if possible, formal backing" of Category A and B liaison organizations for documents.[241] However, in the absence of a voting right, it is unclear how this requirement should be implemented.

The procedure for the recognition of NGOs as liaison organizations has also been criticized as potentially restricting NGO access to the standardization process, since liaison organization status is a matter of (ISO's) discretion and not a matter of (NGOs') right.[242] Presently, ISO Directives do not distinguish between business and civil society NGOs wishing to become liaison organizations. Both must apply and get approved on a case-by-case basis, no automatic right of participation exists. To become a Category A or B liaison organization in a particular TC/SC, NGOs must apply to the Secretary-General, who decides whether to approve the application in consultation with the relevant TC/SC.[243] The nature of this consultation has changed along the years. Until the late 1990s, only the TC/SC secretariat was consulted, and if it was considered that the liaison would be beneficial, it was sufficient for the liaison to be established.[244] The procedure was then extended to include a consultation of all TC/SC P-members and unanimity was required in order for the liaison to be established.[245] This change was inserted in order to allow MBs to prevent the establishment of liaison with an organization coming from the same country if they considered it more appropriate for it to participate via the respective MB.[246] In case of negative votes, they were dealt with on a case-by-case basis. However, in practice, when negative votes were submitted, they came not from the county of the applying organization but from a different country (e.g., the U.S. MB opposing the establishment of liaison with a European regional organization). Nonetheless, opposing P-members have been willing to allow liaisons to be established if a majority of P-

[240] ISO/TC 207 NGO TASK GROUP REPORT, *supra* note 200, sub-section 4.2.3; *Consumers International Report*, *supra* note 190, at 56.
[241] *See supra* text accompanying note 202.
[242] *Consumers International Report*, *supra* note 190, at 55.
[243] ISO DIRECTIVES, *supra* note 43, cl. 1.17.2.3; ISO DIRECTIVES (SUPPLEMENT), *supra* note 44, cl. 1.17.
[244] TMB Draft Resolution on Liaisons, *supra* note 204.
[245] ISO DIRECTIVES (SUPPLEMENT), *supra* note 44, cl. 1.17.
[246] TMB Draft Resolution on Liaisons, *supra* note 204.

members voted in support, so in practice applying organization were not denied.[247] To align with this practice, the TMB is expected to change soon the acceptance procedure of liaisons once again, so that liaisons could be established "if 2/3 of the P-members voting are in favor of the liaison and if the P-member in the country in which the candidate liaison organization is legally incorporated is not opposed to the liaison".[248] This change is expected to bring more clarity into the process, but the approval of the liaison status of NGOs will remain a matter of discretion and not a matter of right. For the completion of the picture it should be added that, recognition of Category D liaisons (i.e., liaison at the WG level) require the approval of the TMB.[249] Probably, the rationale behind this requirement is the TMB's wish to keep good control over the use of such liaisons, bearing in mind that applicants for Category D liaison would usually be business NGOs.[250] TCs and SCs are required to review their liaisons annually and propose to the Central Secretariat cancellation of liaisons which are no longer effective or relevant.[251]

Has the participation of civil-society NGOs in ISO/TC 207 improved following the above-mentioned initiatives? It is difficult to provide an empirically sound answer to this question. As already mentioned, until very recently there were no mechanisms in place to consistently track stakeholder participation in ISO standardization processes.[252] Nonetheless, it has been widely observed that civil-society NGOs (as well as developing countries) have been under-represented in ISO 14000 standards development comparing to the industry sector and to consulting and registrar groups (i.e., organizations that thrive on the development of management system standards, such as firms that provide services relating ISO 14000 standards or ISO 14001 certification) coming primarily from industrialized countries.[253] At least in the first years of ISO/TC 207, a considerable

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[247] *Id.*; E-mail from a NSB official to the author (on file with author); *Consumers International Report*, *supra* note 190, at 55.

[248] TMB Draft Resolution on Liaisons, *supra* note 204.

[249] ISO DIRECTIVES, *supra* note 43, cl. 1.17.3.3.

[250] E-mail from a NSB official to the author (on file with author).

[251] ISO DIRECTIVES, *supra* note 43, cls. 1.17.2.4, 1.17.3.4; ISO DIRECTIVES (SUPPLEMENT), *supra* note 44, cl. 1.17.

[252] While it is relatively easy to count the number of environmental or other civil-society NGOs recognized as liaison organizations, it is difficult to obtain information on the actual participation of these NGOs in the technical work in SCs and WGs, and even more difficult to obtain information on the participation of NGOs through their respective national delegations.

[253] *See, e.g.*, Roht-Arriaza, *Shifting the Point of Regulation*, *supra* note 9, at 524; KRUT & GLECKMAN, *supra* note 143, at 41, 54-55; Jennifer Clapp, *ISO Environmental standards: Industry's Gift to a*

number of SC chairpersons and WG conveners were employees of transnational corporations and industry federations, others coming from environmental consulting firms and NSBs.[254] This pattern of NGO under-representation has been noticed not only in national delegations to ISO but also among the organizations recognized as liaison organizations.[255] A recent NGO report that surveyed the attendance at ISO/TC 207 annual plenary meetings (rather than attendance in SCs and WGs, where the technical work is actually taking place) found that NGOs remain the least represented group and that no meaningful effects of the above-mentioned initiatives could be detected in terms of increased NGO attendance.[256]

NGOs, on their part, keep their eyes open and work cooperatively to ensure that ISO's environmental standards serve the public interest and enhance environmental protection. A central example of this effort is the International NGO Network on ISO (INNI), established by the Pacific Institute. INNI provides timely information on ISO activities to the network organizations – NGOs and civil society groups – so that they can shape public opinion and affect decision-makers.[257] One of INNI's remarkable achievements is its agreement with ISO to make ISO/TC 207's draft international standards (DIS) publicly available on INNI's website, so that affected stakeholders could be informed and have an opportunity to provide input.[258] This is a part of a one-year pilot project between the Pacific Institute and ISO to evaluate mechanisms for broadening civil society

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Polluted Globe or the Developed World's Competition-Killing Strategy?, *in* YEARBOOK OF INTERNATIONAL CO-OPERATION ON ENVIRONMENT AND DEVELOPMENT 2001/2002 27, 31 (Olav Schram Stokke et al. eds., 2001), http://www.greenyearbook.org/articles/01_02_clapp.pdf.

254 Roht-Arriaza, *id*; KRUT & GLECKMAN, *id*.; Clapp, *id*.

255 Clapp, *id.* Presently, there are around 40 Category A and B liaison organization in ISO/TC 207, from civil society (e.g., Consumers International (CI)), the industry sector (e.g., Confederation of European Paper Industries (CEPI)), the academia (e.g., IAQ (International Academy for Quality)), the certification community (e.g., IQNet (The International Certification Network), international organizations (e.g., OECD (Organization for Economic Cooperation and Development)), and others (e.g., ICC (International Chamber of Commerce)), and one Category D liaison (IPIECA (International Petroleum Industry Environmental Conservation Association)). Most liaison organizations are industry associations while environmental NGOs remain a small minority. ISO/TC 207, *About ISO/TC 207: Membership*, at http://www.tc207.org/about207.asp#membership (last updated Feb. 2006).

256 PACIFIC INSTITUTE'S SURVEY OF PARTICIPATION, *supra* note 228, at 19. Note, however, that the survey was conducted prior to the approval of the approval of "phase 1" of the NGO-CAG Task Force workplan to improve NGO participation.

257 INNI, *About INNI*, *at* http://inni.pacinst.org/inni/ForumRegistration.htm#AboutThe.

258 INNI, *ISO Technical Committee 207 – Environmental Management – Draft International Standards*, *at* http://inni.pacinst.org/inni/dis/?file=8&Name=&Org=&Email=&State=.

awareness of, and engagement in, ISO's environmental standards development process.[259]

ISO's outreach to NGOs could be discerned not only in the context of ISO/TC 207. One of the actions prescribed by the ISO Strategic Plan 2005-2010 as required in order achieve the key-objective of "[e]nsuring the involvement of stakeholders" is to "[o]ptimize liaisons and involvement with representatives international organizations of stakeholders".[260] Another example is ISO's active approach towards NGO participation in Social Responsibility standardization (ISO 26000). Not only that ISO identified NGOs as one of the six stakeholder categories that must be represented in national delegations and in national mirror committees, but ISO has also identified international organizations that fall into these stakeholder categories to be invited to participate as Category D liaisons (each organization may send a delegation of two).[261]

V. *ISOS* INDEED? DEVELOPING COUNTRY PARTICIPATION IN ISO STANDARDIZATION PROCESS

A. *Developing Country Participation in ISO Standardization Process*

The previous Section focused on national stakeholders, particularly consumers and civil-society NGOs, and examined how, if at all, they participate in the standardization process as it gradually relocates to the transnational level. The move to the transnational level, however, is not only a change of scenery for national stakeholders. It introduces also a substantive change in the nature of the standardization decisions taken. While at the national level the essence of the standardization process is striking a balance between different national stakeholders, the goal at the transnational level is to reach a compromise between national positions represented by ISO MBs (that are presumed to reflect a national consensus among the respective national stakeholders). Hence, the decisions taken (i.e., the content of the standards) may potentially be affected by the

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[259] *Id*.

[260] ISO STRATEGIC PLAN 2005-2010, *supra* note 195, key-objective 2, action b.

[261] *Consumers International Report*, *supra* note 190, at 67; ISO, COPOLCO, WORKING GROUP ON CONSUMER PARTICIPATION, AGENDA ITEM 9: CONSUMER PARTICIPATION – VIRTUAL WORKING GROUP REPORT, COPOLCO 10/2005 3 (April 2005) (on file with author).

relative weight of the MBs involved (and of their respective countries). With the move to the transnational level a new factor therefore potentially kicks in, namely the political and economic strength of the MBs' respective countries, which may influence their ability to voice out their national preferences.

Moreover, the translocation of the standardization process to the transnational level also broadens the range of affected stakeholders. It is no longer possible to generally speak of categories of stakeholders, such as industry or consumers, as the interests of manufacturers from industrialized countries may differ from those of their colleagues in developing countries. For example, Western consumers, although having a lot in common with consumers from Africa, may also have different concerns. Unlike national standards, ISO standards are thus expected to reflect a balance not only between categories of national stakeholders, that may differ in their interests but usually share common economic and cultural settings, but also between sectoral stakeholders from different countries (e.g., Western manufacturers and African consumers), and even between national groups within the same sectoral stakeholder category (e.g., Western manufacturer and African manufacturer).

When examining whether ISO standardization processes include wide participation, it is therefore imperative to identify the participants not only by their sectoral stakeholder category affiliation, but also by their geographical affiliation. When combining together the above-mentioned two insights – regarding the varying relative weight of MBs and the diverse interests of stakeholders from different countries – concerns arise that the interests of stakeholders from powerful countries might be voiced out louder than the interests of stakeholders from less powerful countries. The present Section seeks to address these concerns. It examines the extent to which developing countries and countries with economies in transition participate in ISO decision-making processes, both at the policy and at the technical levels.

B. *Internal Difficulties Faced by Developing Countries*

Developing countries represent approximately 75% of ISO membership.[262] The categories of Subscriber members and Correspondent members are comprised almost entirely of developing countries, and developing countries also make up approximately 65% of the category of MBs.[263] Several characteristics of developing countries make their participation in ISO standardization processes very difficult. There is a general lack of awareness among all stakeholders in developing countries – governments, industry and consumers alike – of the importance of standards in general and international standards in particular.[264] Many of the developing countries lack national standards tradition and do not have a fully developed infrastructure in the areas of standards and related matters, such as technical regulations, conformity assessment, quality and metrology, some having no NSB at all.[265] This is a corollary, *inter alia*, of the fact that most businesses in developing countries are small and medium-sized enterprises (SMEs), while it is usually large industry that creates a demand for standards and funds the standardization work.[266] In addition, developing countries often lack the expertise and the economic resources that standardization requires.[267] All these challenges, which impede standardization at the national level, are supplemented by further challenges when it comes to participating in international standardization. Attendance at standardization meetings could be very costly and language often sets a barrier to effective participation. The fact that most of the work of ISO technical committees is gradually done over the internet, and therefore does not require physical attendance at meetings, does not alleviate the problem given that many

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[262] ISO, ISO ACTION PLAN FOR DEVELOPING COUNTRIES 2005-2010 (2004), http://www.iso.org/iso/en/prods-services/otherpubs/pdf/actionplan_2005-en.pdf [hereinafter ISO ACTION PLAN FOR DEVELOPING COUNTRIES]. The figure of 75% is accurate as of December 15, 2004.

[263] *Id*.

[264] *See, e.g.*, *Deeper participation in standardization for greater benefits: Developing countries call for action*, ISO BULL., Nov. 2002, at 13, http://www.iso.org/iso/en/commcentre/isobulletin/articles/2002/pdf/gadevco02-11.pdf [hereinafter *Developing Countries call for action*].

[265] *See, e.g.*, Press Release, ISO, New ISO Task Force to increase the participation of developing countries in standards development (July 2001), http://www.iso.org/iso/en/commcentre/news/archives/2001/devcountry.html [hereinafter Press Release on TMB Task Force].

[266] *Developing Countries call for action*, *supra* note 264, at 15.

[267] Fabio Tobón, What's the problem? How to reach solutions? - View from the ISO Technical Management Board (TMB), Presentation at the ISO General Assembly Workshop on Participation of developing countries in international standardization (Sep. 24, 2002), *in* http://www.iso.org/iso/en/commcentre/presentations/ga/gaopen/2002wkshp/ga02wkshp-tobon-en.pdf.

developing countries suffer from lack of information and communication technologies and infrastructure.[268] The governmental nature of NSBs in most developing countries might also present a hurdle to participation when policies are dictated by politics and in the absence of governmental support.[269]

C. *ISO Structural Features and Procedural Mechanisms as Enhancing the Exclusion of Developing Countries*

It could be expected that the national basis for representation in ISO (i.e., one MB per country), rather than on other bases such as financial strength, would work to empower NSBs coming from developing countries. However, as a matter of fact, developing countries are largely excluded from ISO policy-making and technical decision-making processes. This exclusion, even if not intentional, is enhanced by various features of ISO's structure and by its procedural mechanisms. These will be discussed in the following paragraphs.

At the policy level, developing countries are under-represented both in ISO Council and on the TMB. As already mentioned, ISO Council consists of ISO Officers and eighteen MBs.[270] Five of the MBs serving on the Council could practically be considered as the "permanent five", as they are automatically appointed to consecutive terms on the Council being the "largest contributors to the operations of the Organization".[271] The criterion for ranking the contribution to ISO (periodically established by the Council itself and endorsed by the GA) is a calculation based on the annual member dues (60%), the number of TC/SC secretariats (20%), and the number of P-memberships in TCs/SCs

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[268] Ernst-Peter Ziethen, Views of International Organizations and of the donor community – DIN, Address before the ISO General Assembly Workshop on Participation of developing countries in international standardization (Sep. 24, 2002), *in* http://www.iso.org/iso/en/commcentre/presentations/ga/gaopen/2002wkshp/ga02wkshp-ziethen-en.pdf.

[269] *Developing Countries call for action*, *supra* note 264. As of 2002, approximately 85% of NSBs in developing countries were governmental bodies, either government departments (49%) or autonomous government bodies (37%). Only 8% of all NSBs were private and 6% were private-public bodies. *See* ISO, ISO/DEVCO-TMB SURVEY ON STANDARDS, REGULATIONS AND CONFORMITY ASSESSMENT IN DEVELOPING COUNTRIES AND ECONOMIES IN TRANSITION pt. 1 (2002), http://www.iso.org/iso/en/commcentre/presentations/ga/gaopen/2002wkshp/ga02wkshp-AET-en.pdf [hereinafter DEVELOPING COUNTRIES SURVEY].

[270] *See supra* note 49 and accompanying text.

[271] ISO RULES OF PROCEDURE cls. 3.1.1.

(20%).[272] In other words, ranking of MBs' contribution to ISO, which determines their eligibility for Council membership, reflects the relative size of the economies of their respective countries (that determines the MBs' share in the financial support to ISO) (60%), and the degree of MBs' involvement in ISO's technical work, both quantitatively and qualitatively (40%) (that is also related to the home country's financial strength given the expenses associated with holding a secretariatship of TCs/SCs and actively participating in their meetings).[273] The current five "permanent members" on the Council – and for quite many years now – come from the United States, Japan, Germany, United Kingdom and France.[274] The rest thirteen MBs serving on the Council are elected by the GA form groups of countries organized according to their contribution to ISO (calculated as explained above), so that members of the Council represent various degrees of contribution.[275] To promote diversity in Council's membership, MBs, when nominating and electing MBs to serve on the Council, are "invited to observe the objective of having an overall Council membership which reflects the geographic and industrial diversity of the Organization".[276]

Membership on the TMB is also not reflective of ISO's geographical composition. Out of TMB's twelve members, four are automatically appointed for consecutive terms, as reflecting the "most significant responsibility and productivity within the technical committee structure".[277] The criteria for measuring MBs' technical "responsibility and productivity" (established and periodically reviewed by the Council) are similar to those applicable to Council membership, except that greater weight is given to active involvement in ISO's technical work than to MBs' financial contribution to ISO: annual

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[272] *See, e.g.*, the recent Council confirmation, and GA endorsement, of this criterion: ISO Council Res. 11/2003, 73rd Meeting (Mar. 13-14, 2003); ISO GA Res. 11/2003, 26th GA (Sep. 17-19, 2003) (on file with author).

[273] *Id.*; E-mail from a NSB official to the author (on file with author).

[274] Interview with a NSB official (transcript on file with author).

[275] Allocation of seats is as follows: five Council seats are reserved for MBs ranking from six to twenty; five for those ranking from twenty-one to fifty; and three for those ranking from fifty-one onwards. In other words, at any give time half of the first twenty MBs are represented on the Council. ISO RULES OF PROCEDURE cls. 3.1.2-3.1.2.2.

[276] *Id.* cl. 3.1.3. In 2006, the MBs serving on the Council, in addition to the "permanent five", came from Indonesia, Ukraine, Russian Federation, Argentina, Islamic Republic of Iran, Iceland, Jordan, Republic of Korea, Austria, Canada, Slovenia, Switzerland and Italy. ISO, *ISO's structure*, *at* http://www.iso.org/iso/en/aboutiso/isostructure/COUNCIL.html (last modified Jan. 1, 2006).

[277] ISO RULES OF PROCEDURE cl. 4.1.

member dues (25%), the number of TC/SC secretariats (50%), and the number of P-memberships in TCs/SCs (25%).[278] The current four "permanent members" come from the United States, Germany, United Kingdom and France.[279] It is customary that Japan is also always elected to be on the TMB.[280] The rest eight members are elected by the Council based on their contribution to the technical work in ISO (calculated as explained above) and on condition that they hold at least one TC/SC secretariat.[281] Four seats are reserved to MBs ranking from five to twelve and four for those ranking from thirteen onwards.[282] In other words, two-thirds of the first twelve ranking MBs are represented on the TMB at any given time, holding two-thirds of its seats. MBs, when nominating members for the TBM, and the Council, when electing them, are required to "take account, *inter alia*, of the benefit in having a Technical Management Board membership which reflects the geographic and industrial diversity of the Organization".[283]

The under-representation of developing countries is more conspicuous, and probably with severer consequences, at the technical level, where ISO standards are actually created. As indicated above, participation in technical committees is open to all interested MBs. However, MBs' representatives (either MB officials or private-sector/civil-society experts appointed by them) must bear their own costs of participation. Developing countries, suffering from lack of expertise and lack of financial resources, thus find it very difficult to participate actively in the standardization work. And indeed, the figures reveal a very grim picture of developing country involvement – or, rather, non-involvement – in ISO's technical work. A survey conducted by ISO in 2002 found that 35 developing countries (42% of the total number of developing countries that responded to

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278 *See, e.g.*, the recent Council confirmation of these criteria: ISO Council Res. 12/2003, 73rd Meeting (Mar. 13-14, 2003) (on file with author).

279 Interview with a NSB official (transcript on file with author).

280 *Id*.

281 ISO RULES OF PROCEDURE cls. 4.2-4.2.1.

282 *Id.* cl. 4.2.1.

283 *Id.* cl. 4.2.3. Despite the similarity to clause 3.1.3 (nomination and election of MBs to the Council), note also the differences in language between clause 3.1.3 and clause 4.2.3. While the former uses the soft language of "shall be invited" and is addressed to MBs, the latter uses the language of "shall take into consideration" and is addressed not only to MBs but also to the Council. In 2006, the MBs serving on the TMB, in addition to the "permanent four" and the Japanese MB, come from Brazil, Spain, the Netherlands, South Africa, China, Canada and Norway. ISO, *ISO's structure*, *at* http://www.iso.org/iso/en/stdsdevelopment/tc/otherbodies/TechnicalCommitteeDetailPage.TechnicalCommitteeDetail?COMMID=4675.

the survey questionnaire) were not P- or O-members of any TC/SC, 44 developing countries (52%) did not attend any TC/SC meetings in the previous two years, 40 developing countries (48%) did not follow any TC/SC work by correspondence, and additional 12 countries followed the work of between one and five TCs/SCs only by correspondence.[284]

These figures raise serious concerns that, in the absence of developing country participation in the standardization process, the products of this process – i.e., ISO standards – might fail to respond to the needs and interests of the stakeholders in developing countries. Arguably, these concerns are mitigated by the fact that, at least at WG level, where the specification of future standards is largely determined, experts are required to "act in a personal capacity and not as the official representative of the… [MBs or liaison organizations] by which they have been appointed".[285] However, the expectation that experts act in a neutral and unbiased manner seems deficient, both theoretically and practically. From a theoretical perspective, it assumes the existence of a single "technical truth", whereas in many cases several optimal technical solutions exist. Moreover, as ISO scope covers new grounds, where standardization has policy implications, the nature the decisions made is far from being "technical" and the use of terminology, such as "technical" and "experts", seems to be misleading. Apparently, also from a practical perspective experts find it difficult to handle their dual, even triple, loyalty, namely, to their direct employer who pays for their participation in ISO WGs, to their parent MB that appoints them under the expectation that they represent their national position, and to the "technical truth" that best serves the public interest, their interests not always being consistent. Indeed, many have reported that in practice experts represent their commercial and/or national viewpoint, especially when MBs are represented in WGs by a single expert who is then constrained to express the national consensus view.[286]

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[284] DEVELOPING COUNTRIES SURVEY, *supra* note 269, pt. 2. The survey was carried out using a questionnaire to which replies from 84 developing countries (i.e., 71% of ISO members from developing countries at the time) were received. *Id*.

[285] ISO DIRECTIVES, *supra* note 43, cl. 1.11.1

[286] *See, e.g.*, GUIDE FOR NGO PARTICIPATION IN ISO/TC 207, *supra* note 200, at 7; Tamm Hallström, *supra* note 30, at 40, 69-71, on the role of experts in the development of ISO 9000 series. *But see* Thomas A. Loya & John Boli, *Standardization in the World Polity: Technical Rationality over Power, in*

Moreover (and perhaps unsurprisingly), representatives from developing countries are not only absent from the negotiations table, but also from the management of technical committees, as the appointment of chairpersons/conveners and the allocation of secretariats of technical committees are also considerably dictated by the financial strength of the MBs' home countries, given that MBs (or their appointees) are expected to bear the high costs associated with holding these positions.[287, 288] And indeed, in 2005 only 38 MBs held TCs/SCs secretariats, of which 10 MBs performed the secretariat work of 80% of all ISO's TCs/SCs/WGs.[289] This raises concerns that MBs from developed countries, chairing technical committees and providing their administrative services, enjoy greater opportunities to influence the standardization process and to affect its results. It is the chairperson, for example, who is responsible for the work program management and for meeting management,[290] and who determines whether a consensus has been obtained at the Committee Stage thus allowing the circulation of a draft international standard (DIS).[291] On the face of it, these concerns should be refuted, given that chairpersons and secretariats are required to "act in a purely international capacity", divesting themselves of a national point of view.[292] Chairpersons are further forbidden to serve concurrently as delegates of their respective MBs in their own technical committee.[293] Again, however, in practice chairpersons and secretariats, that are

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Constructing World Culture: International Nongovernmental Organizations since 1875 169, 177-178 (John Boli & George M. Thomas, 1999), who seem to admire the technical rationality of experts' activities, despite the fact that they "wear several hats at once".

287 TC chairpersons are nominated by the TC secretariats and approved by the TMB. SC chairpersons are nominated by the SC secretariats and approved by the parent TC. ISO DIRECTIVES (SUPPLEMENT), *supra* note 44, cl. 1.8.1. TC secretariats are allocated to MBs by the TMB. SC secretariats are allocated to MBs by the parent TCs. ISO DIRECTIVES, *supra* note 43, cl. 1.9.1.

288 The costs of holding a secretariat are particularly high, being responsible for the provision of all technical and administrative services to the TC/SC, during and outside meetings. Therefore, MBs could be assigned with a secretariat only if they are "in a position to ensure that adequate resources are available for secretariat work…". *Id.* cl. 1.9.1.b). The costs of holding chairpersonships are not as high, but usually the chairpersonship and secretariat of a given TC/SC are held by the same MB.

289 ISO IN FIGURES, *supra* note 2; Member body ranking for appointment/election to Council, Annex 1 to Council 09/2006 (Feb. 2006) (on file with author).

290 ISO DIRECTIVES, *supra* note 43, cl. 1.8.2; ISO DIRECTIVES (SUPPLEMENT), *supra* note 44, Annex SC.

291 ISO DIRECTIVES, *id.* cl. 2.5.6.

292 *Id.* cls. 1.8.2.a) (with respect to chairpersons); *Id*. cl. 1.9.2 and ISO RULES OF PROCEDURE cl. 5.4 (with respect to secretariats).

293 ISO DIRECTIVES, *id.* cl. 1.8.2.a).

considered to have large influence on the standardization process, find it difficult to alleviate themselves completely above their national or commercial interest.[294]

The under-representation of MBs, experts, chairpersons and secretariats from developing countries in the standardization process might have critical economic consequences to developing countries.[295] If stakeholders from developing countries have no voice in the standardization process and cannot influence the content of its products, then ISO standards might not take their needs into account. This, in turn, might make it difficult for developing countries to adopt and implement ISO standards that are not relevant to them. Indeed, for this reason and others, the percentage of national standards identical to international standards in developing countries is relatively low.[296] As a consequence, developing countries are unable to enjoy the advantageous of international standards, primarily their benefits as access facilitators to global markets and as means for technology transfer. Moreover, while the use of international standards is celebrated as intended to remove non-tariff barriers to trade, for developing countries an unfitted international standard might actually become a trade barrier.[297]

The standardization of ISO 14000 series, mentioned above, provides a striking example of the under-representation of developing countries in the development of standards. Even before the standardization process had begun, the scope of ISO/TC 207 – as approved by the TMB, with hardly any input from developing countries – was *a priori* biased towards industrialized countries, leaving outside its ambit issues of particular concern to developing countries.[298] As already indicated, at least in the first years of ISO/TC 207, all SCs' chairpersons and WGs' conveners came from industrialized countries, a considerable number of whom being employees of transnational corporations

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[294] *See, e.g.*, Tamm Hallström, *supra* note 30, at 101; Interview with a NSB official (transcript on file with author), who raises the question: "Why would any country take it [i.e., technical committees chairpersonships and secretariats] if they can't have some control over it [i.e., the standardization process]?"

[295] Note also the relationship between the under-representation of MBs from developing countries at the technical work level and their under-representation at the policy level. As indicated above, membership in the Council and the on TMB considerably depends on the degree of involvement in the technical work. At the same time, the advancement of initiatives to facilitate the involvement of MBs from developing countries in the technical work lies within the Council's and TMB's authority.

[296] 70% of all developing countries surveyed have half or more of their national standards different from international standards. DEVELOPING COUNTRIES SURVEY, *supra* note 269, pt. 1.

[297] Roht-Arriaza, *Shifting the Point of Regulation*, *supra* note 9, at 527.

[298] KRUT & GLECKMAN, *supra* note 143, at 51.

and industry federations and the rest working for environmental consulting firms and NSBs.[299] In addition, in the standardization process itself, there was a predominance of national delegations from large industrialized countries, particularly European, with very little participation from developing countries.[300] The main reasons behind this under-representation of developing countries were language barriers, the cost of participation, lack of sufficient technical expertise and personnel, the complexity of the standardization process (which took place in numerous fora at the same time), and the sense that their participation would not be effective anyway.[301] And indeed, ISO 14000 standards have been criticized for being highly focused on the environmental concerns of the industrialized world, while neglecting the environmental concerns of many developing countries.[302]

Another example, demonstrating the importance of wide geographical participation for the creation of truly international standards, is the case of ISO standards dealing with ergonomics. Apparently, these standards were based on anthropometric parameters appropriate to populations in Europe and North America, but not appropriate to populations in regions such as Southeast Asia, a fact that hindered their global implementation.[303] In another case, the ISO standard for cigarette lighters could not be implemented in all countries because the maximum permitted flame height set by the standard was not suitable for regions with tropical conditions.[304]

In addition to the above-mentioned structural features of ISO (i.e., the criteria for membership in the Council and on the TMB, the required qualifications for the appointment of technical committees' chairpersons and secretariats, and the conditions for effective participation in the technical work), several of ISO's procedural mechanisms

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299 *See supra* note 253.

300 Roht-Arriaza, *Shifting the Point of Regulation*, *supra* note 9, at 526; KRUT & GLECKMAN, *supra* note 143, at 41-42. For example, in the meeting that decided to pass the committee draft (CD) of ISO 14001 for vote to become a draft international standards (DIS), 92% of developed countries participated actively vis-à-vis 17% participation of MBs from developing countries participated. KRUT & GLECKMAN, *id*. at 42.

301 Roht-Arriaza, *id*. at 527; KRUT & GLECKMAN, *id.* at 55-57.

302 Roht-Arriaza, *id*. at 528.

303 Steven P. Cornish, *New ISO Policy Provides International Solutions to Market Needs*, ASTM STANDARDIZATION NEWS, Jan. 2005, http://www.astm.org/cgi-bin/SoftCart.exe/SNEWS/JANUARY_2005/cornish_jan05.html?L+mystore+sqka4133+1147572795.

304 *Id*.

might also have an exclusionary effect on developing countries, even if not intentionally. Several such mechanisms were already mentioned above. The relative ease of adopting new fields of technical activity or new work items allows a relative small number of interested states to initiate and develop ISO standards that might subsequently have impact on other states as well.[305] Also, the obligation to justify negative votes when voting on draft international standards (DIS) and final draft international standards (FDIS) might create a too-onerous burden for MBs from developing countries wishing to reject the document.[306]

The mechanisms recently introduced in ISO/TC 207 and its subsidiary bodies, of maintaining attendance lists according to stakeholder affiliation and requiring MBs to have balanced stakeholder representation at ISO meetings, might also prove to be disadvantageous to developing countries, despite their original intention to facilitate civil-society NGO participation.[307] Shifting the point of stakeholder deliberation and consensus-making from the national level to the transnational level might work to the benefit of developed countries, that are more able to comprise large and diverse delegations, and threatens to erode the principle of one MB per country, which has the potential of empowering developing countries.[308]

Another example that demonstrates how mechanisms that are intended to enhance wide participation might disadvantage developing countries is the vote by proxy. In general, vote by proxy in the ISO system is very limited, to avoid abuse. Voting by proxy is allowed only in the GA, if notified in writing to the Secretary-General and subject to the condition that a MB may represent only one MB in addition to itself.[309] In order to enhance the participation of MBs from developing countries at the technical work level, it was considered in ISO to allow adopt a vote by proxy mechanism at this level, so P-members from developed countries would be able to vote on behalf of P-members from

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[305] *See supra* text accompanying notes 141-143.
[306] *See supra* text accompanying notes 138-140.
[307] *See supra* text accompanying notes 235-237.
[308] It is noteworthy that the original recommendation of the NGO Task Group, which was the basis for the NGO-CAG Task Force proposal to require MBs to have balanced stakeholder representation at international meetings, referred to "*larger* NSBs" and not to any MBs. For some reason this qualification was later omitted. A GUIDE FOR NGO PARTICIPATION IN ISO/TC 207, *supra* note 200, recommendation 9.
[309] ISO RULES OF PROCEDURE cl. 2.5.

developed countries who are unable to attend TC/SC meeting. This initiative was opposed by MBs from developing countries, contending that effective involvement requires direct participation.[310]

D. *ISO Reaching Out to Developing Countries*

1. ISO Traditional Support of Developing Countries

How is ISO handling the problem of under-representation of developing countries in its standardization processes? For many years ISO addressed the needs of developing countries through DEVCO, its Committee on Developing Country Matters. DEVCO, an ISO policy development committee (i.e., an advisory committee established by the GA for the purpose of organizational policy development, whose chairperson is appointed by the Council[311]), was established in 1961, the first committee of its kind established by an international standardization organization.[312] DEVCO's main objectives have been to identify the standardization needs and requirements of developing countries and assist developing countries in defining these needs and requirements, to recommend actions to assist developing countries in meeting their needs and requirements, and to provide a forum for discussion and exchange of experience between developed and developing countries.[313] Membership in DEVCO has considerably grown along the years, to include over 100 members from both developing and developed countries.[314] In addition to DEVCO seven Regional Liaison Officers (RLOs) are appointed in an honorary capacity by the Council, to assist the Secretary-General in representing ISO interests in their regions and to assist ISO in identifying the needs of their regions.[315] In 1985 ISO also established DEVPRO – the Program for Developing Countries. DEVPRO, a triennial

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[310] Interview with a NSB official (transcript on file with author).

[311] ISO STATUTES art. 6.7; ISO RULES OF PROCEDURE cl. 2.7.

[312] Press Release, ISO, DEVCO's 40 years of service to developing countries (Aug. 2001), http://www.iso.org/iso/en/commcentre/news/archives/2001/devco40.html.

[313] ISO, *ISO's Structure: DEVCO - Committee on developing country matters (DEVCO), at* http://www.iso.org/iso/en/aboutiso/isostructure/DEVCO.html.

[314] As of January 2006 there were 77 P-members and 48 O-members in DEVCO. *Id*.

[315] *Id*.; Alan Bryden, Secretary General of ISO, Developing Countries and ISO, Presentation at a Meeting with Arab Countries (Aug. 12, 2003), http://www.iso.org/iso/en/commcentre/presentations/secgen/2003/ajb2003EOSstrategy.pdf.

program proposed by DEVCO and approved by ISO Council, included activities such as publication of manuals, training activities and sponsorship of delegates to TCs/SCs.[316]

2. Winds of Change – the TBT Agreement

In the past decade ISO has become much more active in its approach towards developing countries. As a matter of fact, this change in ISO's approach has taken place in tandem with the conclusion of the TBT Agreement and the establishment of the WTO. While only some of ISO initiatives in this regard are explicitly a direct corollary of the TBT Agreement and the WTO activity around it, it could be assumed that other initiatives as well are at least strongly inspired by them.

The "hardening effect" of the TBT Agreement on ISO standards was already discussed above.[317] ISO standards, which constitute only "recommendations" to ISO MBs within the ISO regime, became somewhat binding upon states member of the WTO and their respective NSBs by virtue of TBT Agreement, which requires that national technical regulation and standards be based on international standards.[318] This might create grave difficulties to countries whose NSBs do not participate in the ISO standardization process and that feel, as a consequence, that ISO standards do not reflect the interests of their stakeholders. Developing countries in particular might be adversely affected by the TBT Agreement, given their under-representation in ISO standardization processes. The drafters of the TBT Agreement were not unaware of the special vulnerability of developing countries in this regard. Article 11.2, for example, calls upon member states to advise developing countries and provide them with technical assistance regarding the establishment of NSBs and participation in international standardization bodies, and to encourage their respective NSBs to do likewise. Article 12.5 further requires that member states "take such reasonable measures as may be available to them to ensure that international standardizing bodies… are organized and operated in a way which facilitates active and representative participation of relevant bodies in all Members, taking into account the special problems of developing country Members".

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316 Bryden, *id*.
317 *See supra* text accompanying notes 65-68, 73-75.
318 *Id*.

The challenges to developing country participation in ISO has also been discussed by the Committee on Technical Barriers to Trade (TBT Committee) and addressed in its resolutions. In the first triennial review of the TBT Agreement in 1997, for example, the TBT Committee noted the "concerns… expressed by certain Members, in particular developing country Members, on the difficulties they encountered" in taking part in the international standardization process. In response, the Committee emphasized that it was "important that all Members have the opportunity to participate in the discussions, elaboration and adoption of international standards".[319] In the second triennial review of the TBT Agreement in 2000, the TBT Committee noted that "international standardization was an area where developing country participation was still limited and constrained".[320] The Committee made suggestions to resolve this problem, among them, to prioritize international standardization activities of particular interest to developing countries, to secure greater developing country participation as chairpersons or secretariats in technical committees (including, where appropriate, rotation of chair and secretariats), to facilitate effective participation by means of information technologies (e.g., using e-mail as alternative to meetings), to increase the awareness stakeholders at the national level, and to encourage regional cooperation.[321] In addition, the Committee further adopted a decision containing a set of principles that it considered important for international standard development, with the aim to "improve the quality of international standards" and to "clarify and strengthen the concept of international standards under the Agreement".[322, 323]

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[319] WTO, Committee on Technical Barriers to Trade, First Triennial Review of the Operation and Implementation of the Agreement on Technical Barriers to Trade G/TBT/5 para. 19, http://www.wto.org/english/tratop_e/tbt_e/tbt_e.htm.

[320] WTO, Committee on Technical Barriers to Trade, Second Triennial Review of the Operation and Implementation of the Agreement on Technical Barriers to Trade, G/TBT/9 para. 24, http://www.wto.org/english/tratop_e/tbt_e/tbt_e.htm [hereinafter TBT Second Triennial Review].

[321] *Id*. para. 25.

[322] *Id*. para. 20; WTO, Committee on Technical Barriers to Trade, Decisions and Recommendations Adopted by the Committee since 1 January 1995, G/TBT/1/Rev.8, formerly referred to as 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) to the TBT Second Triennial Review, *supra* note 320 [hereinafter TBT Committee Principles].

[323] As already mentioned, the TBT Agreement does not explicitly endorse the international standards of any specific international standards body. Moreover, it does not set any institutional or procedural criteria for international standardization bodies the standards of which come within the scope of the Agreement, with the exception of the requirement that that the membership in these bodies must be

Two of the TBT Committee Principles are of particular relevance to developing country participation. Principle F. ("Development Dimension"), directly dealing with developing countries, reads as follows:

> Constraints on developing countries, in particular, to effectively participate in standards development, should be taken into consideration in the standards development process. Tangible ways of facilitating developing countries' participation in international standards development should be sought. The impartiality and openness of any international standardization process requires that developing countries are not excluded *de facto* from the process... Provisions for capacity building and technical assistance within international standardizing bodies are important in this context.

Also relevant is the requirement for "global relevance" included in Principle D. ("Effectiveness and Relevance"):

> … international standards need to be relevant and to effectively respond to regulatory and market needs, as well as scientific and technological developments in various countries… In addition, they should not give preference to the characteristics or requirements of specific countries or regions when different needs or interests exist in other countries or regions.

There seems to be a linkage between the debates at, and the decisions of, the TBT Committee and at least some of ISO initiative in this area, which are discussed below. Further research is required in order to better understand the relationship between these two bodies (for example, does input flow in one way from the TBT Committee to ISO, or

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open to the relevant bodies of at least all WTO members (TBT Agreement, *supra* note 7, Annex 1, art. 4). The Agreement thus leaves obscure the question, which international standards could form the basis for national technical regulation and standards so that these regulation and standards would be "rebuttably presumed not to create an unnecessary obstacle to international trade". *Id.* art. 2.5. The TBT Committee was unsuccessful so far in resolving these issues, the debate over which is infused with the U.S.-European disagreement over the concept of "international standards". Raymond Schonfeld, *What standardization can do to help the WTO*, ISO BULL., June 2001, at XX, http://www.iso.org/iso/en/commcentre/isobulletin/comment/2001/June2001.html. This situation of uncertainty is disturbing to all countries, but in particular to developing countries, that can not afford the efforts of changing their national regulation and standards so that they are based on international standards just to find out later on that these international standards are not acceptable under the Agreement. The TBT Committee Principles potentially ameliorate this situation of uncertainty, albeit only partially.

is there more of a dialogue between the two bodies?). In any event, there is no doubt that the TBT Agreement has helped putting the concerns of developing countries high on ISO's agenda.

3. ISO New Initiatives

In 2000 the TMB established a Task Force on Increasing the Participation of Developing Countries in ISO Work, with the objectives of investigating possibilities for more immediate involvement of developing countries in ISO's technical work and proposing appropriate modifications to the working procedures.[324] The TMB Task Force made several suggestions to the TMB, some of which will be discussed below. One direct result of these suggestions was the conduct of a comprehensive survey, in collaboration with DEVCO and the WTO, to study the needs of standard organizations in developing countries.[325] The survey was followed by five regional workshops held in the course of 2001 and 2002 with representatives of NSBs, governments, industry, trade and consumers from developing countries.[326] To synthesize the proposals made at the regional workshops, a concluding global workshop, entitled "Enhancing the participation of developing countries in international standardization", was held in 2002 in conjunction with the GA.[327] In order to develop a program of action for the implementation of the recommendations made at the global workshop, the Council established in 2002 a Developing Country Task Force (DCTF).[328] A further high-level ad hoc group was established in 2003 to study those recommendations of the Council Task Force pertaining to ISO governance.[329] Following the recommendations of the ad hoc group the Council decided to convert DEVPRO (the Program for Developing Countries) into a five-year action plan, encompassing the whole spectrum of ISO's activities of interest to

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[324] *Participation of developing countries in ISO's technical work*, TMB COMMUNIQUÉ, Nov. 12, 2000, at 9 [hereinafter TMB COMMUNIQUÉ Nov. 2000]; Press Release on TMB Task Force, *supra* note 265.

[325] ISO TMB Res. 36/2001, Participation of developing countries, 22nd meeting (June 5-6, 2001) (on file with author); Anwar El-Tawil, Secretary of DEVCO, Problems of Standardization in Developing Countries, Presentation at the ISO General Assembly Workshop on Participation of developing countries in international standardization (Sep. 24, 2002), *in* http://www.iso.org/iso/en/commcentre/presentations/ga/gaopen/2002wkshp/ga02wkshp-AET-en.pdf.

[326] *Developing Countries call for action*, *supra* note 264, at 13-14.

[327] *Id*.

[328] ISO Council Res. 06/2002, 72nd meeting (Sep. 28, 2002).

[329] ISO Council Res. 03/2003, 73rd meeting (Mar. 13-14, 2003) (on file with author).

developing countries. DEVCO was tasked to monitor the implementation of the action plan.[330]

ISO Action Plan for developing countries 2005-2010, the first of it kind, was endorsed by the Council in 2004. Based on the long consultation process just described, the Action Plan specifies five key objectives for the year of 2010. Some of these objectives focus mainly on the national level: Improving awareness of stakeholders of the role of standardization in economic growth, world trade and sustainable development; building capacity of ISO members and national stakeholders; increasing national and regional cooperation, to share experience, resources, training, information, and communication technologies; and developing electronic communication and expertise in information technology (IT) tools to participate in international standardization work, reach out to stakeholders, and make efficient use of ISO e-services. [331] To achieve these objectives, ISO provides developing countries with technical assistance and training services, *inter alia* through partnership with international organizations responsible for the delivery of technical assistance and capacity building (e.g., the United Nations Industrial Development Organization (UNIDO)) and donor countries.

More pertinent to the discussion here are ISO's initiatives directly aimed at enhancing developing country participation in ISO. The Action Plan sets as an objective to "increase participation in governance and technical work of ISO to voice priorities, contribute and influence the technical content of ISO deliverables".[332] As for participation in the governance level, it was shown above that the criteria for membership in the Council and on the TMB have an exclusionary effect on developing countries. The Council Developing Country Task Force mentioned above recommended in its report that the membership structure of the Council and the TMB be reviewed with a view to supporting greater developing countries participation.[333] The Council, however, in approving the recommendation of the high-level ad hoc group that was established to review these proposals, decided that the "number and distribution amongst categories of Council seats

[330] ISO Council Res. 26/2003, 74th meeting (Sep. 20, 2003) (on file with author).
[331] ISO ACTION PLAN FOR DEVELOPING COUNTRIES, *supra* note 262.
[332] *Id*.
[333] ISO, Report of the Task Force on Developing Countries (DCTF) to Council, Annex 2 to Council 09/2003, project number 3.5.2 (on file with author).

seems satisfactory".[334] It was equally decided not to change the number of TMB members, although the membership criteria was broadened to ease on developing country membership.[335] Another recommendation made by the Council Developing Country Task Force, to review the ISO membership fee structure and calculation with a view to facilitating developing country membership, was also rejected by the Council.[336]

Better progress has been achieved so far at the technical work level, primarily through the implementation of "twinning arrangements". "Twinning" is the term used in the ISO system to refer to the establishment of partnership between developed and developing countries, particularly at the membership and leadership levels of TCs/SCs. Twinning arrangements were first suggested by the TMB Task Force, as a means of capacity building in developing countries and to enhance their involvement in ISO work, and today are already included in ISO Directives.[337] There are three possible twinning capacities: twinning with a P-member, twinning with a secretariat, and twinning with a chairperson by nominating a vice-chairperson. Twinning with a P-member (also referred to as "partnering" in ISO jargon) is intended to ensure that the views and needs of a developing-country MB (the twinned MB) are taken into account by the TC/SC even if the latter is unable to participate.[338] This arrangement also ensures that the twinned MB, registered as such by the Central Secretariat, retains its P-member status even without regularly attending the TC/SC meetings. The P-member and the twinned MB are free to decide for themselves the preferred way of implementing twinning (e.g., through the P-member funding twinned MB's experts or through the P-member seeking and conveying the views of the twinned MB to the TC/SC, including casting a vote on behalf of the twinned MB (in which case the twinned MB should provide its position in writing also to the committee secretariat to avoid abuse)). Developing-country MBs may also agree to

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[334] ISO Council Res. 26/2003, *supra* note 330. It was decided, however, to improve the support given to elected Council members, especially those from developing countries.

[335] *Id*. The Council decided to amend clause 4.2 of the Rules of Procedure, so that eligibility to TMB membership, previously restricted to MBs holding at least one TC/SC secretariat, would be extended to include developing country MBs holding TC/SC "twin" chairpersonship or "twin" secretariat under the new twinning arrangements. *See infra* text accompanying notes 337-343.

[336] *Id*.

[337] ISO CHANGE NOTIFICATION (CN) 01/2003, Twinning.

[338] ISO DIRECTIVES (SUPPLEMENT), *supra* note 44, cl. 1.7.1.

enter into twinning arrangements with MBs holding TC/SC secretariats.[339] The delineation of secretariat responsibilities is left for the MBs to decide. When the MBs holding the secretariat wish to relinquish it, the developing-country MB should receive first refusal as to whether it wishes to assume the full responsibility for the secretariat.[340] Technical committees are further encouraged to create vice-chairperson positions (one per committee) and to nominate representatives of developing-country P-members to these positions.[341] The chairperson and the vice-chairperson decide on the division of responsibility between them. Sharing of secretariats and chairpersonships by developing and developed countries (i.e., nomination of chairpersons from developing countries by secretariats in developed countries and vice versa) is also strongly encouraged.[342] Finally, it is strongly recommended that technical committees make special provisions to allocate places for representatives of developing countries in advisory groups established by the committee.[343] Since the introduction of the twinning arrangement, several TCs have worked to twin their chairpersonship and that of their subsidiaries, by creating vice-chairperson positions and nominating developing-country representatives to them. Perhaps unsurprisingly, most of the TCs that have twinned their leadership so far are high-profile TCs, whose international standards have clear policy implications – ISO/TC 176 (Quality Management and Quality Assurance),[344] ISO/TC 207 (Environmental Management), ISO/TC 224 (Service activities relating to drinking water supply systems and wastewater systems), and ISO/TMB/WG on Social Responsibility.

To overcome the financial obstacle to developing country participation, ISO has established a Funds-in-Trust that is used to sponsor delegates from developing countries and to finance many of the technical assistance activities undertaken in favor of developing countries. Contributions to the Funds-in-Trust are subject to the good will of MBs, and often lack of sufficient resources has been indicated. ISO itself does not

339 *Id.* cl. 1.9.2.
340 *Id.* cls. 1.9.3-1.9.4.
341 *Id.* cl. 1.8.3.
342 *Id.* cl. 1.8.1.
343 *Id.* cl. 1.13.
344 While ISO/TC 176 has been very active in nominating vice-chairpersons, it has decided, as a matter of policy, not to twin TC/SCs secretariats given the "inappropriate" additional burden on the P-members holding secretariats that is associated with such arrangements. ISO/TC 176, Twinning in ISO/TC 176: Guidance for Implementation, ISO/TC 176 N848 (on file with author); E-mail from a NSB official to the author (on file with author).

contribute to the Funds-in-Trust. A suggestion made by DEVCO to the Council to allocate 1% of the membership dues to the Funds-in-Trust has not been accepted.[345] In the context of environmental management standardization, individual states have also sponsored the participation of delegates from developing countries on a voluntary and ad hoc basis.[346] In the context of social responsibility standardization, a designated Task Group has been established on funding and stakeholder engagement (TG 1), with the tasks of establishing funding mechanisms and ensuring fundraising in order to encourage developing country participation.[347]

Another noteworthy ISO initiative is the publication by the TMB of "Policy and Principles statement" and "Implementation Guidance" on "Global Relevance of ISO Technical Work and Publication" in 2004.[348] These publications were developed in direct response to the above-mentioned TBT Committee Principles, which, according to ISO's viewpoint, "placed an obligation on ISO to ensure that the International Standards it develops, adopts and publishes are globally relevant", otherwise they will be open to being challenged as creating a barrier to free trade.[349] *Inter alia*, these publications highlight the importance of participation of all relevant ISO MBs, in particular those from developing countries, as a major factor in supporting global relevance of ISO standards.[350] Arguably, ISO's alignment with the TBT Committee's criteria for "quality international standards" demonstrates its concern to preserve the endorsement of its standards by the TBT Agreement, as interpreted by the TBT Committee.

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345 *Report: 33rd ISO DEVCO Meeting, Beijing (18-19 October 1999)*, XLI(1) OIML BULL., Jan. 2000, at 60.

346 The Netherlands, for example, provided a grant that enabled delegates from developing countries to attend some of the critical meetings of ISO/TC 207. Roht-Arriaza, *Shifting the Point of Regulation*, *supra* note 9, at 527 n.268.

347 ISO, *Social Responsibility: Organization*, http://isotc.iso.org/livelink/livelink/fetch/2000/2122/830949/3934883/3935096/04_organization/org_str.html.

348 ISO, ISO/TMB Policy and Principles statement: Global Relevance of ISO Technical Work and Publication, http://public.ansi.org/ansionline/Documents/Standards%20Activities/Background%20Papers/Supporting%20Documents/ISO%20GR%20Policy%20Document.pdf [hereinafter ISO Statement on Global Relevance]; ISO, ISO/TMB Implementation Guidance: Global Relevance of ISO Technical Work and Publication, http://public.ansi.org/ansionline/Documents/Standards%20Activities/Background%20Papers/Supporting%20Documents/ISO%20GR%20Implement%20Document.pdf [hereinafter ISO Guidance on Global Relevance].

349 ISO Statement on Global Relevance, *id*. sec. 1.

350 ISO Guidance on Global Relevance, *supra* note 348, Answer #3.6.

Finally, developing country participation is now also enshrined in ISO Code of Ethics, requiring ISO members to take into account the "development dimension", by contributing to ISO's actions to improve developing country capacity and participation in international standardization.[351] The ISO Strategic Plan 2005-2010 further prescribes steps aimed at "raising the awareness and capacity of developing countries".[352]

VI. ISO IN THE GLOBAL MARKET OF STANDARDIZATION

The two previous Sections focused on ISO's "normal" standardization process and examined the changes introduced into this process along the time. The present Section presents new standardization processes that have been developed by ISO in recent years, arguably as a corollary of the competition that ISO is faced with from the direction of other standardization bodies or fora. While in many fields ISO enjoys exclusiveness, being the sole transnational standardization body, in others ISO operates in a market of standardization, where several standardization bodies or fora develop potentially substitutive standards that compete with ISO standards.

Such competing bodies and fora have emerged particularly in the past two decades, challenging ISO's dominance either on a sectoral basis or on a geographical-regional basis. On a sectoral basis, ISO has been exposed to competition mainly from private industry-driven consortia that develop standards and technical specifications, primarily in areas of fast-moving technology like IT. Such standards often become *de facto* international standards in the market, despite the fact that they are developed by private fora and represent an agreement between industry actors only (rather than an ISO-type consensus among a broader range of stakeholders).[353]

At the geographical-regional level, ISO was particularly challenged by the significant expansion of the standardization activity of *CEN*, the European Committee for Standardization, in the late 1980s. After several decades in which the European Community relied on ISO standards in its efforts to promote harmonization within

[351] ISO CODE OF ETHICS, *supra* note 153.
[352] ISO STRATEGIC PLAN 2005-2010, *supra* note 195, key-objective 3.
[353] Smith, *supra* note 4.

Europe, and European MBs and stakeholder groups were highly involved in ISO standardization, the European Community's "New Approach" directives brought about a diversion of resources form ISO to *CEN*, rendering many of ISO's technical committees paralyzed.[354]

Such alternative standardization fora set a hard challenge to ISO. Since they are less entangled than ISO with ensuring wide participation, consensus, and due process (either because of their private nature, or because their standardization process involves a smaller and more homogeneous group of participants, or both), they are able to standardize faster and with greater efficiency. How has ISO reacted to these challenges of competition and what has been their effect, if at all, on its standardization procedures? The following Sub-Section examines these questions in the context of competition with private consortia and other standardization fora.

A. *ISO and the Emergence of Private Standardization Fora*

Emergence of private standardization fora has been particularly conspicuous in areas of fast-moving technologies, principally telecommunications (which is outside the scope of ISO and will not be discussed here) and IT. To understand the mushrooming of private IT standardization fora, the nature of the competitive environment in which ISO operates, and ISO's subsequent response, it is important to denote some of the distinct features of the IT market and of IT standardization.

1. The IT Standardization Market

IT, at least for ISO purposes, includes "the specification, design and development of systems and tools dealing with the capture, representation, processing, security, transfer, interchange, presentation, management, organization, storage and retrieval of information".[355] IT products are network goods, namely, their value increases with the number of users of these goods and of complementary goods. Manufacturers and vendors of IT products, wishing to enjoy the benefits of network externalities, thus often have an incentive to cooperate with their competitors and coordinate common IT standards to

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[354] *Id.*

[355] ISO/IEC, ISO/IEC PROCEDURES FOR THE TECHNICAL WORK OF ISO/IEC JTC 1 ON INFORMATION TECHNOLOGY cl. 2.1.3 [hereinafter JTC 1 DIRECTIVES].

advance the technical compatibility of their respective products, both software and hardware.[356] Such standards are aimed at achieving interoperability (i.e., ensuring that one machine could talk to another), portability (i.e., ensuring that software written on one machine could be used on another one), and data exchange (i.e., ensuring that files created by one program could be read by another one) of IT products.[357]

IT standards are therefore particularly market-driven. The need for such standards originates in the market, in the acknowledgement of manufacturers and vendors of the technological inter-dependence of their products.[358] The standards are perceived by the IT industry as a "business issue", as one of the attributes of the product differentiating it from others.[359] However, the market is not always successful in creating a common IT standard. While occasionally *de facto* standards do develop through the market (e.g., the adoption of VHS as the videocassette standard, or MS-DOS as the standard personal computer operating system), particularly when there is a single dominant player that can dictate the standard, such standards might be suboptimal for the industry or users.[360] In other cases, competition between market players might lead to a standstill of the market, or to standards whose development is inefficient, being delayed and costly (e.g., the case of High Definition TV (HDTV)).[361] A need for an arena where market players could collectively coordinate common IT standards therefore arises.

To provide such an arena, ISO and IEC established in 1987 the ISO/IEC Joint Technical Committee 1 (JTC 1) on Information Technology, whose standardization

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[356] Abbott & Snidal, *supra* note 33, at 350; Nicholas Economides & Fredrick Flyer, *Compatibility and Market Structure for Network Goods*, 1-2 (1997), *at* http://www.stern.nyu.edu/networks/98-02.pdf.

[357] MARTIN C. LIBICKI, INFORMATION TECHNOLOGY STANDARDS: QUEST FOR THE COMMON BYTE 9-10 (1995). JTC 1 Directives highlight another related purpose of IT standardization, that is cultural and linguistic adaptability. JTC 1 DIRECTIVES, *supra* note 355, cl. 1.2 third para.

[358] Raymond Werle, *Institutional aspects of standardization – jurisdictional conflicts and the choice of standardization organizations*, 8 J. EUR. PUB. POL'Y 392, 393 (2001)

[359] Carl Cargill, *The Informal Versus the Formal Standards Development Process: Myth and Reality*, *in* STANDARDIZATION ESSENTIALS: PRINCIPLES AND PRACTICES 257, 258 (Steven M. Spivak & F. Cecil Brenner eds., 2001)

[360] Stanley M. Besen, *The standards processes in telecommunication and information technology*, *in* STANDARDS, INNOVATION AND COMPETITIVENESS: THE POLITICS AND ECONOMICS OF STANDARDS IN NATURAL AND TECHNICAL ENVIRONMENTS, *supra* note 5, at 136, 137, 139; Abbott & Snidal, *supra* note 33, at 350. Noteworthy are the attempts of IBM in the sixties and seventies and Microsoft in the nineties to establish *de facto* standards. KAI JAKOBS, STANDARDISATION PROCESSES IN IT: IMPACT, PROBLEMS AND BENEFITS OF USER PARTICIPATION 17 (2000).

[361] Abbott & Snidal, *id.* at 350; Besen, *id.* at 137; JAKOBS, *id.* at 21-22.

procedures will be examined below. However, in tandem with JTC 1, a host of consortia and other private fora have been established in the past two decades to develop IT standards. Such consortia and private fora, established either for a particular standardization task upon completion of which they are dissolved or as standing standardization committees, are mostly vendor-driven, comprised of like-minded companies.[362] However, unlike *de facto* standards developed by powerful market players, which are usually "proprietary standards" (i.e., not made public and remain the property of the developing company), the standards or technical specifications developed by consortia and comparable fora are "open standards" (i.e., they are openly available to enhance broadest support and acceptance).[363]

Apparently, the proliferation of consortia and other forms of private standardization has been particularly noticeable in the IT industry given the strong business significance ascribed to standards by IT companies.[364] In addition, it seems that the tendency of IT standards to be self-enforcing once established, given the incentives that companies usually have to adhere to them in order to enjoy the network externalities, has also made the field of IT more receptive to private forms of standardization.[365] Since compliance with IT standards is not dependent on the adoption of standards in national regulation or on the accreditation of IT companies by NBSs, IT companies feel less compelled to standardize their technology in international standardization bodies, such as ISO and the IEC, whose standards assumingly enjoy a higher degree of acceptance by governments and NSBs. Moreover, in the eyes of the IT industry, such institutions suffer from several considerable flaws. First and foremost, the standardization processes in these bodies are relatively slow, arguably too slow, to serve the needs of fast-moving technologies. Speedy processes are of particular importance in the area of IT, where the development of standards is often integrated into the development and design of the technology itself (rather than *ex post* consolidation of existing technical practices).[366] Quite ironically,

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[362] Werle, *supra* note 358, at 399-400; Cargill, *supra* note 359, at 260.
[363] JAKOBS, *supra* note 360, at 14, 17-18.
[364] Cargill, *supra* note 359, at 258.
[365] Abbott & Snidal, *supra* note 33, at 350; SUSANNE K. SCHMIDT & RAYMOND WERLE, COORDINATING TECHNOLOGY: STUDIES IN THE INTERNATIONAL STANDARDIZATION OF TELECOMMUNICATIONS 119-120 (1998).
[366] Hawkins, *supra* note 5, at 147-148.

these are two of the most important virtues of international standardization bodies, celebrated as their source of strength – consensus and wide participation – that are conceived as weaknesses by the IT community.[367] Reaching consensus often takes time, and by definition may lead to compromised solutions. Wide participation, of numerous and diverse stakeholders, is also time-consuming and requires compromise. Obviously, it is much easier to reach a desirable outcome within a small and closed group of like-minded companies.[368]

Hence, when companies decide where to standardize their IT products, they may choose either to set a *de facto* standard through the market, to bring their technical specification to ISO/IEC JTC 1, or to bring their technical specification to an existing consortium. Big companies, that can afford the high costs of standardization,[369] may even choose to bring their technical specification to several parallel standardization for a and switch from one standardization forum to another if unsuccessful in achieving their goals in the first trial, or establish a new consortium altogether that excludes their competitors.[370] Sociologists and economists have investigated the considerations that IT companies take into account when deciding where to standardize their technology.[371] Among the considerations that affect the attractiveness of the various standardization fora are the standardization procedures that they employ, and in particular their impact on the pace and outcome of the standardization process. For example, where speed is of particular concern to a company and it wishes to avoid a standardization process that entails a high degree of compromise, it may be reluctant to bring its technology for standardization in an international standardization body, where consensus and wide

[367] Werle, *supra* note 358, at 397; Besen, *supra* note 360, at 142; JAKOBS, *supra* note 360, at 17, 35.

[368] Werle, *id.* at 402.

[369] For example, it has been estimated that the costs of developing a single part of the Ethernet standards amount to approximately $10,000,000 (including costs of time, travel and salaries of the committee members). Petri Mähönen, *The Standardization Process in IT – Too Slow or Too Fast?*, *in* INFORMATION TECHNOLOGY STANDARDS AND STANDARDIZATION: A GLOBAL PERSPECTIVE 35 (Kai Jakobs ed., 2000).

[370] Werle, *supra* note 358, at 404; JAKOBS, *supra* note 360, at 25.

[371] Note that such considerations may vary from one case to another, depending on variables such as the features of the company concerned (e.g., its position in the market and its ability to promote *de facto* standards through the market), and the nature of the specific desired standard (e.g., whether it targets an entire IT system or only an IT component, and the type of "coordination game" between competing potential standards). Werle, *id.* at 404-405; Besen, *supra* note 360, at 138-140.

participation underlie the standardization process.[372] Other considerations, however, such as the goal of enhancing the market acceptance of a standard or the desire to save standardization costs, may create a pull in the opposite direction.[373, 374]

The focus of this paper, however, is not on the choice that companies make regarding the arena of standardization, rather on the reaction of ISO, as one such arena, to the fact that companies have a choice. In the face of competition with other standardization fora, and given the weight that companies ascribe to the standardization procedures of such fora, it seems logical that ISO will attempt to adapt its IT standardization processes so they accommodate the preferences of companies.

However, before turning to explore ISO's reaction to the challenges of competition, it is important to address in brief the question why, if at all, IT standards matter, that we should care about their development process. The central place that information occupies in our life today – for example, as a source of knowledge, as a means of communication, and as an essential tool in commerce – also demonstrates the significance of IT standards, which determine how such information is to be processed, organized, distributed, etc. Such standards reflect a choice among various perceptions in this regard.[375] Moreover, they determine the technology of the future, upon which our "information society" is built.[376] IT standards, and the standardization bodies that develop them, also affect the mere accessibility of information. While "proprietary standards" often provide only limited access to the relevant technical specifications, "open standards" provide full access, which facilitates the development of compatible products. The licensing regime that accompanies the standard also has bearings on the accessibility to information.

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372 Werle, *id.* at 406-407.

373 *Id.* at 405-406.

374 Another type of considerations relates to the level of concession that companies are required to make with respect to their intellectual property rights in condition to the endorsement of their standards by the standardization body (i.e., the extent to which companies are required to disclose their patents relevant to the standard and the licensing regime that will apply to these patents or other intellectual property rights (e.g., royalty-free or reasonable-and-non-discriminatory (RAND))). In general, standardization bodies that are more company-friendly (and therefore less user-friendly), such as consortia, will require a lower level of concessions. Benjamin Chiao, Josh Lerner & Jean Tirole, *The Rules of Standard Setting Organizations: An Empirical Analysis* 5-6, 16-19, 22-23 (Harvard NOM Research Paper No. 05-05, 2005), http://ssrn.com/abstract=664643.

375 *See* LIBICKI, *supra* note 357, at 3-4.

376 Kai Jakobs, *Preface*, *in* INFORMATION TECHNOLOGY STANDARDS AND STANDARDIZATION: A GLOBAL PERSPECTIVE, *supra* note 369, at *i*.

Finally, IT standards may have further policy implications, particularly in the areas of privacy protection and freedom of speech.

A derivative question is who the stakeholders of IT standardization are. One obvious stakeholder group is that of manufacturers and vendors of IT products, who have a pecuniary interest in IT standards. However, large multinational manufacturers or vendors may have different interest than small or medium-sized companies.[377] Another one is that of users of IT products, ranging from corporate users to individual end-users, each category having distinct interests. Governments as well often have interest in IT standards, as buyers of IT products, as regulators (particularly in communications-related areas), as representatives of the public interest in common IT standards for the promotion of economic efficiency, and sometimes as the patrons of national industry wishing to facilitate the ability of the latter to compete internationally.[378] The general public may have interest in IT standardization not only as end-users, but also as a beneficiary of easy and unhindered access to information and when IT standards have bearings on the individual's rights to privacy and speech or on the right of children not to be exposed to offending speech.

Equipped with a better understanding of the world and market of IT standardization, we now come to examine how ISO has adapted its standardization procedures in the area of IT and in other areas, arguably in response to the challenge of competition presented by consortia and other private IT standard-setting fora. Several categories of response could be identified, as detailed below.

2. Adaptation of ISO Standardization Procedures

(a) Expediting the Standardization Process

As mentioned above, one of the major drawbacks of ISO's standardization process from a company's standpoint is its relative slow pace. Following the normal standardization process, it would take ISO approximately three years to publish a standard subsequent to the approval of the work item proposal.[379] Some standardization

[377] *Id.*
[378] LIBICKI, *supra* note 357, at 23.
[379] ISO DIRECTIVES, *supra* note 43, cl. 2.1.6.

projects may even last longer. To accommodate the IT market needs, by way of which also become more appealing to IT companies seeking to standardize their technologies, ISO and IEC adopted a designated set of procedures to apply to JTC 1's IT standardization work.[380] While these procedures resemble ISO's general standardization procedures, they nonetheless introduce several significant changes, justified by the "unique requirements" of IT standardization, "as a consequence of the pace of innovation".[381] Many of these changes are aimed at expediting the IT standardization process, "for the success of the technical work, and thus for the general reputation of ISO and IEC".[382]

A novel governing principle in this regard is that "technical aspects of a committee document for an International Standard should not be discussed at more than two levels within JTC 1". [383] Guided by this principle, discussion of documents is carried out at WG and SC levels only (rather than at JTC 1 level), and if no WG is involved then the discussion is limited to one level only.[384] The opportunities to provide comments on documents have been narrowed down to the WG/SC level (i.e., when a final draft international standard (FDIS) is forwarded for vote by the entire ISO membership at the Approval Stage MBs can only approve, disapprove, or abstain).[385] In addition, to accelerate the standardization process, in some instances the SC may decide to skip stages, particularly when the SC considers a document to be of suitable maturity or when it believes that the document enjoys substantial technical agreement.[386] Finally, while under normal standardization procedures draft standards are circulated twice among the entire ISO membership (the Enquiry and Approval Stages), in IT standardization the Enquiry Stage has been completely omitted.

Another way to increase the speed of IT standardization is by compromising the consensus principle. While the consensus principle is a governing, even constitutional,

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[380] JTC 1 DIRECTIVES, *supra* note 355.
[381] *Id.* Forward second para.
[382] *Id.* cl. 12.2.2.
[383] *Id.* cl. 1.2 fourth para.
[384] *Id.* cl. 12.2.3.
[385] *Id.* cls. 9.7, 12.2.3.
[386] *Id.* cls. 12.2.7 (skipping the Preparatory Stage), 12.5.7 (skipping the Committee Stage), 12.6.3.10 (skipping the Approval Stage).

principle of normal standardization procedures, IT standardization procedures are only "inspired" by it.[387] "[S]ubstantial support" is sufficient to approve a committee draft (CD) at the Committee Stage, although in determining whether such level of support has been achieved attention should be given not only to the numerical voting results but also to the attempts to resolve negative votes.[388] When consensus is encouraged (in the Preparatory Stage, for the approval of the working draft of a standard at the WG level), it is accompanied by a utilitarian reasoning: "This will enhance the likelihood of achieving successful CD/FCD and FDIS ballots".[389] The final approval of the standard, by the entire membership of ISO and IEC, has remained unchanged and still requires a high level of support (at least two-thirds of the P-members (at JTC 1/SC level) vote in support and not more than one-quarter of the total number of votes cast (at ISO/IEC level) are negative).[390]

(b) "ISO-Washing" of Standards Developed Outside ISO

In recent years, in direct response to the development of standards and technical specifications by industry-driven consortia in the area of IT and in other fields of standardization, ISO has been willing to "ISO-wash" existing standards or draft standards that were developed outside its technical committees. Under the general ISO Directives such documents may be submitted to ISO and be approved as ISO standards through an expedite procedure (entitled "fast-track procedure").[391] The exact procedures to be applied vary according to the identity of the proposer and the source of the existing standard or draft standard. For example, any MBs or an A category liaison organization may propose that an existing standard from any source be submitted to vote by all ISO MBs as a draft international standards (DIS), after obtaining the agreement of the originating organization (i.e., skipping the Preparatory and the Committee Stages).[392] If an "international standardization body recognized by ISO Council" chooses to submit a

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[387] *Id.* cl. 1.2 second para..
[388] *Id.* cls. 9.4.3, 12.6.3.5-12.6.3.6.
[389] *Id.* cl. 12.5.3.
[390] *Id.* cl. 9.6.
[391] For the causal relationship between consortia standardization and the adoption of the "fast-track" procedure, *see, e.g.*, ISO, *New deliverables and shortened processes*, TMB COMMUNIQUÉ, No.2, Aug. 1997, at 3.
[392] ISO DIRECTIVES, *supra* note 43, Annex F cl. F.2.1.1.

standard already developed by that body, it may be directly submitted to vote by all ISO MBs as a final draft international standards (FDIS) (i.e., skipping the Preparatory, Committee and Enquiry Stages).[393] A similar "fast-track" processing has been applied to IT standardization as well.[394]

(c) Opening ISO's Doors to Private Actors

Another noticeable response to the standardization efforts by industry-driven consortia is the gradual opening of the ISO standardization processes to actors other than MBs, including private actors. The relatively recent addition of Category D liaison organization to the "normal" procedure, already mentioned above,[395] and Category C liaison organization to the IT standardization procedure,[396] which allows private interest groups, such as manufacturer associations and industrial consortia, to nominate experts to participate in ISO WGs, is one example.[397] Another example, in IT standardization, is the Publicly Available Specification (PAS) Transposition Process, intended to attract industry consortia to submit technical specifications to ISO for their expeditious approval as ISO standards.[398] This process is open to any company, consortium or other body that

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[393] *Id.* Annex F cl. F.2.1.2. Very few organizations have been recognized so far by the ISO Council as "international standardization bodies", among them the International Commission on Illumination (CIE) and the International Union of Leather Technologies and Chemists Societies (IULTCS). Such recognition is normally made only in cases when there is no competent ISO technical committee. International standardization bodies must be open to the relevant bodies of all countries and their standards should be developed by groups of experts whose knowledge and international experience is comparable to that of an ISO technical committee. Steven Cornish, *Descriptions of Approaches for ISO Cooperation with other SDOs* (ANSI internal document) (on file with author).

[394] JTC 1 DIRECTIVES, *supra* note 355, art. 13. Two significant distinctions of the IT "fast-track" procedure, though, are the review period that precedes the vote and the deliberation process that follows it. Prior to the vote on the standard as a draft international standard (DIS), JTC 1 members are allowed a 30-day review period, during which they may comment on the document. The comments received are circulated among all JTC 1 members "for the transparency of the process". *Id*. cls. 13.3-13.4. After the five-month ballot voting period, the results are forwarded to a "ballot resolution group" that is established on an ad hoc basis by the appropriate SC. The ballot resolution group is comprised of representatives appointed by the MBs. MBs having voted negatively must to nominate representatives. The ballot resolution group considers the comments on the document with the aim of reaching consensus (however, if a vote is unavoidable a simple majority is sufficient). It is only after deliberations at the ballot resolution group that it is examined whether the acceptance criteria have been met to decide whether the document could be published as an ISO standard. *Id*. cls. 13.5-13.10.

[395] *See supra* text accompanying notes 207-209.

[396] JTC 1 DIRECTIVES, *supra* note 355, cls. 3.3.1, 3.3.4.

[397] ISO DIRECTIVES, *supra* note 43, cls. 1.17.3.1-1.17.3.2.

[398] Although JTC 1 Directives generally refer to "organizations" that develop publicly available specifications (PASs) (JTC 1 DIRECTIVES, *supra* note 355, cl. 14.1), they primarily target consortia. Roy Rada, *Consensus Versus Speed*, *in* INFORMATION TECHNOLOGY STANDARDS AND STANDARDIZATION: A GLOBAL PERSPECTIVE, *supra* note 369, at 19, 24.

has been recognized by JTC 1 as a "PAS submitter".[399] Such a PAS submitter may submit its technical specifications directly to the Approval Stage, for vote as draft international standards (DIS).[400]

ISO also allows access of private actors into its IT standardization process through the conclusion of "cooperative working agreements" with consortia. Instead of competing with each other over the development of IT standards, JTC 1's SCs and consortia with similar interest areas join forces and collaborate in the development of standards. For example, under the agreements that SC 24 (computer graphics, image processing and environmental data representation) concluded with the World Wide Web Consortium (W3C) and the Virtual Reality Modeling Language (VRML) Consortium, the initial technical work takes place principally within the respective consortium, with the participation of SC 24 experts. The technical specifications developed by the consortium are then processed by SC 24 into ISO standards, with liaison from the consortium, as quickly as feasible and without unnecessary changes.[401]

(d) Greater Attentiveness to Industry Stakeholders

As shown above, under the "normal" standardization procedure significant emphasis is put on the requirement to take into account the interests of all relevant stakeholders (particularly at the national level), being a direct derivative of the consensus principle. Quite surprisingly, such a requirement is barely traceable in IT standardization procedures. These procedures seem to show much greater consideration of industry interests, and far less consideration of the interests of other stakeholder groups, particularly users (either corporate users, individual end-users, or others). Users are hardly mentioned in JTC 1 Directives, and when they are mentioned it is done not in a very robust manner. For example, proposals for new work items (NP) must include a "non-technical statement of users' functional requirements", and when MBs are

[399] JTC 1 DIRECTIVES, *id.* cls. 14.1, 14.4.1. *See infra* notes 412-415 for the criteria for recognition as a PAS submitter.

[400] JTC 1 DIRECTIVES, *id.* cls. 14.4.2-14.4.3. Similar to the IT "fast-track" processing (*see supra* note 394), the success or failure of the vote are not determined by the ballot results but only after a "ballot resolution group" has been established to consider the results. *Id.* cls. 14.4.3.7-14.4.3.11.

[401] Rada, *supra* note 398, at 26-28 (regarding cooperation with W3C); George S. Carson, Richard F. Puk & Rikk Carey, *Developing the VRML 97 International Standard*, 19(2) IEEE COMPUTER GRAPHICS AND APPLICATIONS, Mar.-Apr. 1999, at 52, 54, 57, http://csdl.computer.org/dl/mags/cg/1999/02/g2052.pdf (regarding cooperation with VRML consortium).

responding to the NP ballot they "should comment on the statement of user requirements and are encouraged to consult widely within the user community for input".[402] Apparently, this is part of a wider phenomenon of under-representation of user interests in international standardization bodies and almost complete lack of representation in consortia and other private standardization fora.[403] Other stakeholder groups, such as governments, are also almost absent from IT standardization procedures. Admittedly, as mentioned above, certain interest groups may participate in the standardization work as "liaison organization", either at the JTC 1 and SC level (Categories A or B) or at the WG level (Category C). However, it seems that greater weight is ascribed to organizations that may contribute to the wide acceptance of the future standard (rather, for example, than to organizations that provide voice to under-represented stakeholder groups).[404]

(e) Introduction of New Technical Documents

The rise of alternative standardization fora has also brought ISO to develop and publish normative and informative documents other than international standards, not necessarily in the IT field but also in other areas of ISO standardization.[405] These documents are usually interim technical specifications, published at different stages of the standardization process, that enjoy reduced levels of transparency and consensus compared to ISO standards. Their publication notwithstanding is aimed at catering market needs, especially in areas of fast-moving technologies. For example, a Publicly Available Specification (PAS) is an intermediate specification that reflects consensus at the WG level, which may be published prior to the development of a full ISO standard with the support of a simple majority of the TC/SC.[406] A Technical Specification (TS) is another type of an interim technical specification, this time representing consensus at the

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[402] JTC 1 DIRECTIVES, *supra* note 355, cl. 6.2.1.2. In addition, when considering a proposed standard it should be demonstrated that it is not likely to "inhibit the benefits of technology to users". *Id.* cl. 12.2.1. Another example for a context in which it is specifically mentioned that the interests of users should be taken into consideration is when it is considered whether to publish a technical corrigendum or an amendment of a standard, or an amendment of a technical report (TR), in a separate document or in a combined edition. *Id.* cls. 15.4.2.1, 15.5.4, 16.4.4.3, respectively.

[403] JAKOBS, *supra* note 360, at 37.

[404] For example, in addition to the general obligation to distribute for information and comment committee drafts (CDs) to liaison organization, JTC 1 Directives provide that "[o]rganisations which can make an effective contribution to the application of ISs [International Standards] in a given area should be expressly invited to comment on all relevant CDs". JTC 1 DIRECTIVES, *supra* note 355, cl. 12.6.2.3.

[405] Smith, *supra* note 4.

[406] ISO DIRECTIVES, *supra* note 43, cl. 3.2.1.

TC/SC level. TSs may be proposed when a standard is still under development or when an agreement on the publication of a proposed standard is anticipated but is not immediate, and there is an urgent market need for guidance on how standards in a particular field should be used. The provisional application of the TS allows the gathering of information and experience on its use in practice. TSs may be published also when the TC/SC have already decided to produce a standard but the required support cannot be obtained for a final draft international standard (FDIS) to pass the Approval Stage, or in case of doubt concerning consensus. A two-third majority of the P-members of the TC/SC may decide in these circumstances to publish the document in the form of a TS.[407]

3. Struggling between the Desire to Remain Relevant and the Commitment to Fundamental Principles of Standardization

It could be generally observed that there are "less" administrative law-type mechanisms in IT standardization than in the "normal" standardization process. For example, there are fewer opportunities to discuss and comment on draft documents. There is far less emphasis on wide participation of all relevant stakeholders, and the principle of consensus – wide participation being a corollary of which – has been eroded. In addition, the access to ISO of private (industry) actors and of normative documents developed by private (market-driven) bodies has been dramatically facilitated.

Arguably, the primary factor that has led to the above adaptations is the fierce competition that ISO has been exposed to from alternative private standardization fora. Truly, it is not simple to isolate the factor of competition from other potential factors, particularly the factor of the subject-area of standardization. Could it be that these are the distinct features of the IT field mentioned above that have influenced ISO's IT standardization procedures, rather than the emergence of alternative standardization fora? The retort to this challenge is three fold. First, indeed, further empirical research is required to substantiate this alleged causal relationship between the competitive environment in which ISO is operating and the development of its procedures. However, evidence obtained thus far seems to buttress this argument, at least with respect to some

[407] *Id.* cl. 3.1.1.1-3.1.1.2.

of the modifications to ISO "normal" procedure.[408] Finally, the factors of competition and subject-area of standardization are not unrelated, to the contrary. It seems that the unique features of IT (e.g., its dynamic nature, its strong market orientation, and the decreased level of governmental regulation), to which ISO perhaps did not satisfactory respond, have resulted in and enabled the emergence of alternative standardization fora. Nonetheless, it is assumed here that it is the latter which has caused the development of ISO's IT standardization procedures, namely, that in the absence of alternative IT standardization fora ISO would not have revised its "normal" standardization procedure the way it has, notwithstanding the unique characteristics of IT.

From an ISO standpoint, the designated IT standardization procedures enabled the organization to remain relevant and viable. Had not these procedures been adopted, ISO's IT standards would have risked becoming ineffective, and as a result ISO might have faced difficulties in convincing companies to invest the resources involved in participating in ISO technical work. Seemingly, the fact that the field of IT is less subject to governmental regulation and that the criteria for the success of IT standards is primarily their actual adoption by the market, has made it easier for ISO to adopt procedures that seem to be more attentive to the industry sector. In this context, the application of the TBT Agreement and other WTO instruments to IT standards should also be ascertained, to consider its potential impact on ISO's incentives.

Without arguing at this stage that "less" administrative-law type mechanisms is necessarily worse, or making any other normative evaluation of ISO's IT standardization procedures, it is worthwhile pointing at several potential drawbacks of these procedures. For example, the PAS Transposition Process mentioned above, which facilitates the expedite transposition of private technical specification into ISO standards,[409] actually allows a single company to dominate an ISO standard, as this company both designs the standard in the first place and maintains control over its future direction.[410] Another

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[408] *See, e.g.*, *supra* note 391; Smith, *supra* note 4. Smith, a Director Standards at ISO Central Secretariat in charge of ISO's Technical Program, specifically describes the development of "streamlined procedures" and new normative documents in IT standardization as a response to the emergence of effective private IT standardization.

[409] *See supra* text accompanying notes 398-400.

[410] Rada, *supra* note 398, at 24, 26. One of the first and well-known cases in which the PAS Transposition Process was invoked is when Sun Microsystems Incorporated (Sun) submitted in 1997 a PAS proposal

potential difficulty arises from the observed erosion in the principles of consensus and wide stakeholder participation, despite the essential role that users, for example, should play in the standardization process.[411]

However, in tandem with the gradual erosion in the fundamental principles of institutional standardization, ISO tries to ensure that at least a minimal level of these principles is respected. For example, to ameliorate the concerns surrounding the PAS Transposition Process, JTC 1 Directives prescribe that only organizations recognized as "PAS Submitters" could submit PAS for transposition process. The criteria for such recognition, which is limited in time, include, *inter alia*, a requirement that the organization use "reasonable processes for achieving broad consensus among many parties".[412] Also, the organization should "demonstrate the openness and non-discrimination of the process which is used to establish consensus, and it should declare any ongoing commercial interest…".[413] Openness should not only generally be reflected in the constitutional characteristics of the organization, but also in the PAS itself. An explanatory report accompanying the PAS must describe the extent of international/national consensus that the document has already achieved.[414] In addition, full transparency of the PAS Transposition process is highlighted, and JTC 1 is obliged to publish the current status of any proposal on its web-site.[415] Similarly, recognition of organizations as Category D liaison organizations is also conditioned upon these bodies embodying somewhat public features, namely being "multinational (in their objectives

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for Java. Despite strong objection of Microsoft and other PC-focused companies, Sun was recognized as a PAS Submitter. However, the efforts to transpose Java into an ISO standard were not successful. To evade losing control over the standard, Sun switched the standardization efforts to the European Computer Manufacturers' Association (ECMA), an old consortium that Microsoft was not a member of which at the time. Java was adopted as an ECMA-Script, which was later adopted by JTC 1. *Id*. at 25-26; Werle, *supra* note 358, at 407.

411 *See, e.g.*, JAKOBS, *supra* note 360, at 37-39; Kenji Naemura, *User involvement in the life cycles of information technology (IT) and telecommunication standards*, *in* STANDARDS, INNOVATION AND COMPETITIVENESS: THE POLITICS AND ECONOMICS OF STANDARDS IN NATURAL AND TECHNICAL ENVIRONMENTS, *supra* note 5, at 93, 97-98. However, in a report published by ISO in 1990, surveying the projected demands for international standardization, a difficulty with the traditional multi-interest consensus process is identified in the case of emerging technologies, given that such technologies have no user yet. ISO/IEC, A VISION FOR THE FUTURE: STANDARDS NEEDS FOR EMERGING TECHNOLOGIES (1990) (on file with author).

412 JTC 1 DIRECTIVES, *supra* note 355, Annex M, cl. M7.3.2.

413 *Id*.

414 *Id*. Annex M, cl. M7.4.2.

415 *Id*. cl. 14.4.

and standards development activities) with individual, company or country membership" and having "a sufficient degree of representativity within a defined area of competence within a sector or sub-sector of a relevant technical or industrial field".[416]

Another way in which ISO is working to ensure that the fundamental principles of standardization are not completely eroded is though inserting checks that facilitate monitoring the implementation of new standardization tracks. For example, to monitor the use of the new technical documents introduced by ISO in response to the rise of alternative private standardization fora (documents that enjoy reduced levels of transparency and consensus), the frequency of periodical review has been increased (every three years instead of every five years for regular ISO standards) and the duration of the documents has been restricted (after six years a Publicly Available Specification and a Technical Specification must be either concerted into ISO standards or be withdrawn).[417] In addition, as opposed to ISO standards that should not conflict with each other, competing documents offering different technical solutions may be published.[418] ISO's efforts to closely monitor the implementation of the new standardization mechanisms are also demonstrated in the case of the "fast-track procedure". When this procedure was first introduced, any invocation of it required the prior approval of the TMB. Only after a couple of year of satisfactory implementation this requirement was waived.[419]

Finally, in relatively extreme cases standardization documents could be challenged either by the Secretaries General of ISO and/or IEC (in IT standardization only) or using the appeal mechanism. In the first case, the Secretaries General may intervene in the processing of a document at any stage if "any serious health, safety or other risk" is likely to arise from the implementation of the standard. The matter is then discussed with the JTC 1 Secretariat, and if necessary referred to the respective Councils.[420] In the second case, decisions or documents could be challenged under the causes and procedures

[416] ISO DIRECTIVES, *supra* note 43, cl. 1.17.3.1. Note, however, that recognition of Category C liaison organization, in the context of IT standardization, is not subject to similar requirements.
[417] *Id.* cls. 3.1.1.1, 3.2.5.
[418] ISO, *Standards development process and deliverables*, *available a*t http://www.iso.org/iso/en/stdsdevelopment/whowhenhow/proc/deliverables/iso_pas.html.
[419] TMB COMMUNIQUÉ Nov. 2000, *supra* note 324, at 7.
[420] JTC 1 DIRECTIVES, *supra* note 355, cl. 10.1.

already mentioned above (e.g., harm to the reputation of ISO or IEC; detrimental to public considerations such as international trade and commerce, safety, health, or environment).[421]

[421] *See supra* notes 177-180 and accompanying text (for appeal mechanism in non-IT standardization); JTC 1 DIRECTIVES, *id.* cl. 11 (for appeal mechanism in IT standardization).