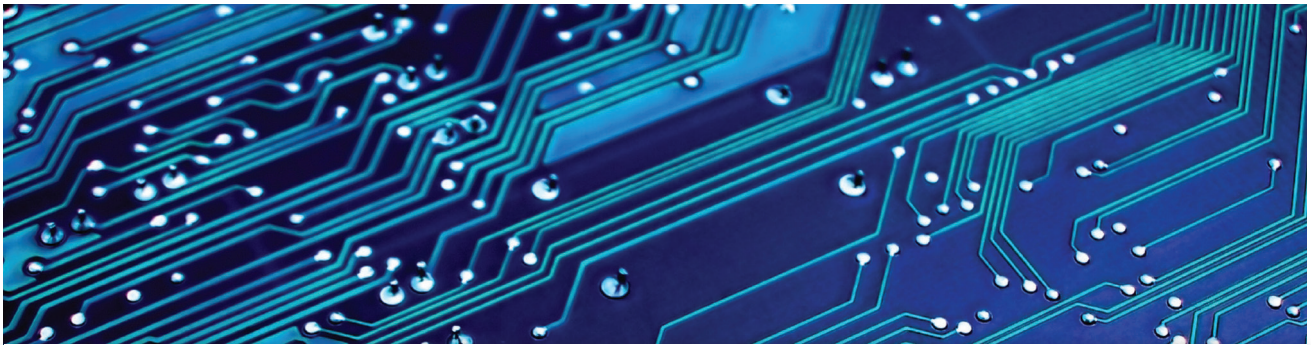




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STRENGTHENING THE GLOBAL TRADE SYSTEM



Standards, Innovation, and their Role in the Context of the World Trade Organization

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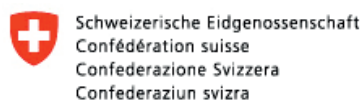
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ABSTRACT

This think piece discusses the role of standards in the WTO context, including their impact on innovation. It argues that the WTO concept of standards as captured in the Technical Barriers to Trade (TBT) Agreement was established in a pre-globalization and pre-digital era and does not take into account the open standards that have been developed by globally open communities outside the traditional nation-centric system. The development and evolution of technologies on which the Internet is based exemplifies the success of this bottom-up, globally open, market-driven system of standardization. There is a need, therefore, for the WTO to update its concepts and definitions of standards, and the underlying processes, to the 21st century reality so as to encompass more inclusiveness and openness in an era of global challenges that require increased innovation. This can be realized through an explicit acknowledgement of the value of the standards-setting and developing bodies that follow a globally open, market-driven paradigm.

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LIST OF ABBREVIATIONS

G-20	Group of Twenty
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
ISO	International Organization for Standardization
ITU	International Telecommunication Union
MTN	Multilateral Trade Negotiations
NGO	Non-Governmental Organization
OECD	Organisation for Economic Co-operation and Development
PCs	Personal Computers
TBT	Technical Barriers to Trade
UN	United Nations
W3C	World Wide Web Consortium
WTO	World Trade Organization

INTRODUCTION

The concept of standards in the World Trade Organization (WTO) Technical Barriers to Trade (TBT) Agreement does not take into account the ubiquitous open standards that have been produced, and the technology platforms that have been developed by a priori globally open communities outside the traditional nation-centric system. These communities are grounded in universal openness; leverage and build upon knowledge for innovation; and produce standards in a process that is open to a of world experts without territorial restriction. This reality cannot be ignored anymore, since these standards provide great value through removal of barriers and promotion of innovation, global trade, and chances for development. By failing to acknowledge the nature and existence of the a priori globally open standards development ecosystem, with its associated inclusivity (of participants and standards bodies) and dynamism, the current WTO concept of standards and standardization limits innovation and potential global economic growth.

Moreover, standardization processes that are universally open and transparent from the very beginning (and thus, less prone to manipulation) can help re-establish the shaken trust in the system (see revelations about manipulation of encryption standards in the national phase and how they are subsequently exported globally through the International Organization for Standardization, or ISO, stamp).

Thus, WTO needs to update its concepts and definitions of standards and the underlying processes to suit 21st century reality. In this context, this think piece briefly discusses the role of standards in the WTO context, including their impact on innovation. It puts forth considerations for the WTO concept of standardization to encompass more inclusiveness and openness in an era of global challenges that require increased innovation.

STATE OF PLAY

Globalization is generally acknowledged as a quasi-automatic "megatrend" that will shape the world in coming years. It is regarded as a kind of natural force that will sustain world economic growth; raise world living standards; and deepen global interdependence. At the same time, globalization creates economic, social, and environmental challenges that may undermine its future, if not addressed in a collaborative way (Box 2009). Only focusing on competition, and with a lack of collaboration strategies and frameworks, the benefits of globalization will systematically accrue to those countries that already have a competitive edge and can best access and adopt new technologies, including the capacity to shape and control strategic standards. This is not a sustainable long-term development as it will create a systemic level of global economic inequity.

DATED WTO CONCEPT OF STANDARDS

The WTO, with its focus on the avoidance of unnecessary obstacles to trade, has created provisions and general terms for standardization that are defined by the United Nations (UN) system and by international standardizing bodies.¹

The WTO concept of standards as captured in the TBT Agreement was founded in a pre-globalization and pre-digital (for example, before the Internet and mobile communications) climate.² Its genesis dates back to the signing of the General Agreement on Tariffs and Trade (GATT) in 1947, and a GATT working group in the 1970s concluded that technical barriers were the largest category of non-tariff measures faced by exporters. This resulted in a plurilateral Agreement on Technical Barriers to Trade, which outlined rules for preparation and adoption of standards. In 1995, as an outcome of the Uruguay Round, the Agreement on Technical Barriers to Trade came into force with the formation of the WTO³ (Motaal 2000).

Because of this legacy, the WTO concept of standards

1 | WTO TBT Agreement, Article 1, General Provision.

2 | WTO TBT Agreement in Annex 1 defines a standard as a "document approved by a recognized body that provides, for common and respected use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labeling requirements as they apply to a product, process or production method."

addresses mainly the negative, with an emphasis on barriers to trade facets. As noted in Annex 3 of the Agreement, Code of Good Practice for the Preparation, Adoption and Application of Standards, “The standardizing body shall ensure that standards are not prepared, adopted or applied with a view to, or with the effect of, creating unnecessary obstacles to international trade.”⁴ Further, the WTO concept of standards is based exclusively on a standards development paradigm embodied by such standards organizations as the ISO; the International Electrotechnical Commission (IEC), and the International Telecommunication Union (ITU) and their underlying national representation model. It essentially means “first consensus by and within a national body, then geopolitical export.”

Via the Code of Good Practice, the Agreement encourages WTO Members to base their standards on international standards, guides, or recommendations where they exist and to harmonize to avoid the emergence of unnecessary layers of technical requirements. It encourages WTO Members to use standards developed with the approval of the international community. The international community is defined by the construct of a nation-centric standardization model and system, and therefore fails to capture the emergence of global collaboration platforms in the field of standardization, and their huge impact on innovation and trade. This blind spot negatively impedes the direct recognition of associated contributions and standards, and opportunities for cross-national/regional communities of technical experts to cooperate and exchange information, which can foster innovation on a global scale. This must be addressed if we seek to advance innovation and open markets. Maintaining the old logic means forcing future standardization activities into a dated regime. This has a negative impact on broad collaboration in the decisive early phase of standards development, as actors that are needed to address the impacts of globalization and global technical expertise are excluded, jeopardizing standards setting as an innovation promoting system.

OPEN STANDARDS: CORE TO UNBOUNDED MARKET AND TRADE GROWTH AND SUCCESS THROUGH INNOVATION

Generally, key actors in innovation systems (for example, companies, research bodies, knowledge institutions, academia, and standards developing communities) influence

3 The Uruguay Round was the eighth round of multilateral trade negotiations (MTN) conducted within the framework of the GATT, from 1986 to 1994. The Round led to the creation of the WTO. It came into effect in 1995 with deadlines ending in 2000 (2004 in the case of developing country contracting parties) under the administrative direction of the newly created WTO.

4 For the full text of the Code, see http://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm#annexIII.

knowledge generation; diffusion and use; and shape national and global innovation capacity (Box 2009). These actors and systems need unencumbered access to, and participation in, open, voluntary standards—outside the potential constraints of the narrowly defined paradigm for first national, and then international standards. As the global community strives to keep pace with technology expansion and to anticipate the technological, societal, and cultural implications of it, and as it faces the increasing interference of technology with economic, political, and policy drivers, embracing a bottom-up, market-driven, and globally open and inclusive standards development paradigm will help ensure strong integration, interoperability, and increased synergies along the innovation chain across national and regional boundaries. Working within a framework of open participation and diversity, this paradigm espouses competition and at the same time collaboration among stakeholders to drive innovation and global growth.

The globally open standards approach has demonstrated agility, as witnessed in the development and deployment of the standards for the Internet; is driven by technical merit; and harnesses global creativity and expertise through bottom-up collaboration. The approach results in the advance of cutting-edge technology and empowers the rapid economic implementation of high-value, high-demand products and services, with societal benefits. It drives technical innovation via processes that ensure direct, open participation, and which embrace different perspectives and interests to reach common goals. It produces standards developed according to accepted WTO principles, without borders and without limits, to ensure a better future for all.

Working within a set of principles that advocates global cooperation and openness; provides for global interoperability and the building blocks for further innovation; and contributes to the creation of global benefit for humanity is core to unbounded market and trade growth, and success through innovation.

THE INTERNET: AN OPEN PARADIGM EXAMPLE

The development and evolution of technologies on which the Internet is based exemplifies the success of this bottom-up, globally open, market-driven system of standardization. The Internet evolved from a networking community to a global collection of communities, and its widespread information infrastructure has resulted in today's e-commerce, information sharing, and community operations. The standards on which the Internet was built, and continues to evolve on and advance, were developed within a globally open, inclusive, and decentralized model that allows for diversity of opinions and approaches as well as flexibility to acknowledge and address change and varying needs, opening the door to innovation by leveraging and expanding knowledge. Cross-organizational coordination

and collaboration between the Institute of Electrical and Electronics Engineers (IEEE), the Internet Engineering Task Force (IETF), and the World Wide Web Consortium (W3C) underpin the process of developing these standards. They collectively represent a suite of standards that form the foundation of the Internet and are being developed with a focus on technical excellence. They are deployed through the collaboration of many participants from all around the world. Together, they have been a key facilitator of the growth of a global economic and social model that has touched billions of lives. As of June 2013, the Internet had 2.75 billion users worldwide, nearly 40% of the world's population. Recent reports place the Internet economy at 4.1% of the gross domestic product (GDP) of Group of Twenty (G-20) countries in 2011, with 21% of it growing in the past five years (ITU 2013; DiGrande et al. 2012; Manyika and Roxburgh 2011).

The standardization paradigm that enabled the success of the Internet provides for the involvement of participants from all around the world, outside of the limitations of nation-centric processes. It efficiently addresses the challenges associated with increasing growth of the global marketplace, including the role that standards play in international trade, and the inherent unpredictability of converging and emerging technologies on a global scale (Housely and Mills 2012). This distinct standardization paradigm, captured as OpenStand, has a voluntary, bottom-up nature, is decentralized, pluralistic, and industry led.⁵ It aligns with the six principles of the WTO TBT Committee's Decision on Principles for the Development of International Standards, Guides and Recommendations. It demands

- Respectful cooperation between standards organizations, whereby each respects the autonomy, integrity, processes, and intellectual property rules of the others.
- Adherence to the fundamental parameters of standards development, including due process, broad consensus, transparency, balance, and universal openness.
- Collective empowerment to strive to develop standards that are chosen and defined on technical merit, as judged by the expertise of an open and global expert community; provide global interoperability, scalability, stability, and resiliency; enable global competition; serve as building blocks for further innovation; and contribute to the creation of benefit for humanity.
- Availability of standards specifications; they are made globally accessible to all for implementation and

⁵ OpenStand is an initiative jointly launched by Internet Architecture Board (IAB), IEEE, IETF, Internet Society (ISOC), and W3C in Aug 2012 to raise awareness about a market-driven standards paradigm conveyed through a set of principles, and giving the opportunity for supporters to show public support.

⁶ See Decision on Principles for the Development of International Standards, Guides and Recommendations at docsonline.wto.org/imrd/directdoc.asp?DDFDocuments/t/G/TBT/1R10.

deployment; and the proponents of this paradigm have defined procedures to develop specifications that can be implemented under fair terms, ensuring a broad affordability of the outcome of the standardization process (openness of input and output).

- Voluntary adoption of standards by the market, which determines their success.⁶

AN OPEN STANDARDIZATION PROCESS: ENABLING TECHNOLOGY ADVANCEMENT TO ADDRESS GLOBAL ISSUES

Globally open standardization processes and standards produced through a collective of standards bodies adhering to such principles are essential for technology advancement, as global expert communities directly address, in an open and collaborative way, global issues such as sustainability, cybersecurity, privacy, education, and capacity building.

The nation-centric concept of standardization embodied in current WTO rules implies significant government influence, and may lead to the temptation to pick national/regional winners. Moreover, it is necessarily a more "controlled" system, open only to national/regional representatives in the decisive early standards development phase.

Globally open standards have helped humanity achieve essential goals; enhanced public health and safety; technology innovation; market expansion and job growth; and the rollout of more sound and interoperable products at a lower cost. An example of how this type of open standards has helped can be found by examining the many applications for the global suite of Ethernet technology standards. With more than 1.2 billion ports shipped in 2012 alone, Ethernet ranks highly among those technologies that affect day-to-day life on a global scale.⁷ From datacenters, personal computers (PCs), laptops, and smartphones to power infrastructure and smart meters, personal medical devices, connected cars, and more, Ethernet touches all established and emerging technologies through the collective contributions of individuals in industry, academia, and government. These types of standards provide the underpinnings of social wellbeing, and their value and necessity are coming into sharper focus in the age of globalization.

The acceleration and convergence of technology; the emergence of new radical innovations; growing global markets; and increased global challenges (for example, climate change, depletion of natural resources,

⁷ See <http://www.forbes.com/sites/markfidelman/2012/05/02/the-latest-infographics-mobile-business-statistics-for-2012/>.

environmental hazards, energy supply, e-health, cybersecurity, and privacy) bring new actors and bodies into the standardization arena. Standards development environments, their associated processes/models, and related treaty and global institutional bodies need to be poised to engage new actors, such as civil society organizations, and be flexible to address rapidly evolving and changing dynamics in the standards ecosystem to ensure innovation for market growth and society's benefit.

RESPONSE

The current WTO conception of standards did not anticipate the magnitude of economic, technological, and social evolution and growth, and their resulting challenges. It carries a nation-centric view to align with its country-based membership. This presents challenges for organizations not fitting in this paradigm; it encumbers direct recognition of associated contributions and standards; and hinders opportunities for transnational communities of technical experts to cooperate and exchange information in the decisive early phases of standards development, which can foster all-encompassing innovation dynamics on a global scale. It is precisely this type of innovation that can serve to advance global win-win dynamics; market growth; and address global challenges, resulting in the advance of technology for the benefit of humanity. The most effective way to provide for multi-stakeholder engagement and direct participation outside the current limitations of international standards and standardization definitions and practices is to cultivate a renewed framework for standards that encompasses and recognizes the globally open standards approach. Successful progress towards this framework provides the impetus for institutional bodies to redefine their concepts of standards and standardization.

WTO can herald effective transformation to develop a "level-playing field" for all actors; and be a global advocate for universal inclusivity through evolving its concept of standards in the TBT Agreement, and associated Code of Good Practice and the 2000 Decision on Principles for the Development of International Standards, Guides and Recommendations. Specifically, WTO should,

- Reconceptualise its paradigm of international standards and standardization;
- Reformulate its definition of international standards and standards organizations;
- Establish practices that foster and accept direct participation from global actors outside the nation-centric archetype; and
- Champion cross-global institution change to align with

greater inclusivity and broader definitions of standards and standards bodies to inaugurate a shared a priori universally open global paradigm.

WTO notes in the World Trade Report 2012 that "the drivers of change are many, including greater interdependency in a globalizing world, increased social awareness, and growing concerns regarding health, safety, and environmental quality. Many of these factors call for a deepening of integration, wresting attention away from more traditional and shallower forms of cooperation."⁸ These drivers and their trajectories and intersections are also present in standards development forums. Just as the rise in global production and innovation chains may create new forms of policy spillovers that require direct cooperation on non-tariff measures, the standards ecosystem will require global cooperation and collaboration, and the recognition of global open standards and the processes in which they are developed.

As WTO Director General Pascal Lamy states in the foreword to World Trade Report 2012, "We have to think differently about the challenges of international cooperation. When trade opening is the core business, the 'level playing field' imagery applies." Although said in the context of non-tariff measures, it captures the essence of the transformation that is necessary to drive increased cooperation and collaboration. From the current perspective, where innovation and growth must be underpinned by a standards infrastructure that is open to all, inclusivity on a global scale is required from the very beginning of the process.

The WTO TBT Agreement obliges governments to use international standards as a basis for regulations. International standards are used by the agreement as a means to promote international harmonization of technical regulations; conformity assessment procedures; and national standards(Wijkstrom and McDaniels 2013).In the agreement, as well as in various institutional venues and discussions, standards and standardization are qualified with a need to be "international," and an implied mandate that they be developed, adopted, and/or recognized through the national standards system and by such bodies as the IEC, ISO, and ITU. Such qualifiers are specifically made in different parts of the TBT Agreement.⁹

Recognizing the important contributions that international standards and conformity assessment systems can make in this regard by improving efficiency of production and facilitating the conduct of international trade;

Desiring therefore to encourage the development of such international standards and conformity assessment systems;

8 | For the full text of the WTO World Trade Report 2012, see

9 | For the full text of the WTO TBT Agreement, see http://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm.

Recognizing the contribution which international standards can make to the transfer of technology from developed to developing countries;

Article 1, General Provisions 1.1: General terms for standardization and procedures for assessment of conformity shall normally have the meaning given to them by definition adopted within the United Nations system and by international standardizing bodies taking into account their context and in the light of the object and purpose of this agreement.

Article 2, Preparation, Adoption and Application of Technical Regulations by Central Government Bodies 2.6: With a view to harmonizing technical regulations on as wide a basis as possible, Members shall play a full part, within the limits for their resources, in the preparation by appropriate international standardizing bodies of international standards for products for which they have either adopted, or expect to adopt, technical regulations.

These qualifications are further supported by the Code of Good Practice, and General Provisions C,¹⁰ "Standardizing bodies that have accepted or withdrawn from this Code shall notify this fact to the ISO/IEC Information Centre in Geneva ... The notification may be sent either directly to the ISO/IEC Information Centre, or through the national member body of ISO/IEC or, preferably, through the relevant national member or international affiliate of ISONET, as appropriate."

A significant decision taken by the WTO TBT Committee relates to international standards—the 2000 Decision on Principles for the Development of International Standards, Guides and Recommendations with Relation to Articles 2, 5 and Annex 3 of the TBT Agreement.¹¹ This decision set forth six principles for the process of international standards development. These are summarized below (Wijkstrom and McDaniels 2013).

- **Transparency:** All essential information regarding current work programs should be made easily accessible to at least all interested parties in the territories of at least all WTO Members.
- **Openness:** Membership of an international standardizing body should be open on a non-discriminatory basis to relevant bodies of at least all WTO Members. This would include openness, without discrimination, with respect to participation at the policy development level and at every stage of standards development.
- **Impartiality and consensus:** All relevant bodies of WTO Members should be provided with meaningful opportunities to contribute to the elaboration of an international standard so that the standard development

process will not give privilege to, or favor, the interests of a particular supplier, country, or region.

- **Effectiveness and relevance:** To serve the interests of the WTO membership in facilitating international trade and preventing unnecessary trade barriers, international standards need to be relevant, and effectively respond to regulatory and market needs, as well as scientific and technological developments in various countries. They should not distort the global market, have adverse effects on fair competition, or stifle innovation and technological development.
- **Coherence:** To avoid the development of conflicting international standards, it is important that international standardizing bodies avoid duplication of, or overlap with the work of other international standardizing bodies.

In examining these six principles, opportunities are identified to re-establish the concept of standards and standardization, and to align the principles with a globally open standards approach. For example, with the principle of openness, which promotes openness in participation, without discrimination, at every stage of standards development, discrimination factors that create barriers for organizations not fitting the current nation-centric logic may be addressed to foster increased inclusivity. The principle of effectiveness and relevance, which demands international standards do not stifle innovation and technological development, may be realized through unencumbered access to and participation in open, voluntary standards outside the constraints of a narrowly defined paradigm of national/regional consensus standards first.

By participating in the development of standards developed in a market-driven paradigm that enables and embraces global openness, diversity, and respect (and by making use of them), stakeholders in developing countries have an opportunity to co-shape and access knowledge to help drive improvements, innovation, and economic growth. By setting a commonly agreed baseline for new technologies to evolve—to be innovated on—standards facilitate large-scale incremental technological change. Standards open new markets and applications, and make proprietary knowledge broadly available for current and future innovative technologies. Globally open standards development forums help promote solutions, and provide networking opportunities with and among cross national/regional communities of experts, creating vibrant, open ecosystems that provide multiple sources of readily available information and expertise.

Standardization is a platform used by researchers and other actors in the innovation process, and standards are important components in the framework for research, development, and innovation. Standards are a vehicle for sharing knowledge, technology, and good practices. In a 2011 DIN German Institute for Standardization study on the economic benefits of standardization, it was noted that to ensure continued economic growth, it is not only sufficient to create new knowledge through R&D or to import it, but also disseminate it broadly so that as many organizations and individuals as possible can make use of it. Open standards are particularly

10 | For the full text of the Code, see: http://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm#annexIII.

11 | The full text of the Decision is at: http://www.wto.org/english/res_e/res_e.html.

suitable tools for the dissemination of knowledge because of their broad accessibility. Leveraging existing standards from an inclusive collective of standardization bodies is essential for maximizing the gains of innovation, especially as many countries rely heavily on the adoption of innovations from abroad for their own innovation performance (DIN 2011).

The Organisation for Economic Co-operation and Development's Science, Technology and Industry Working Papers state that many member countries have the framework to boost innovation or have a range of instruments to foster it, but find that innovation performance, although good in comparison to peers, has not sufficiently raised productivity and growth to improve living standards or address key global challenges. New and improved products, services, and ways of producing them are a major driver of economic growth. Moreover, there is the potential to meet global challenges with the application of innovative solutions that require a global and inclusive perspective, and for which science, technology, and innovation must play a key role (Box 2009). The required global perspective can be enhanced by the evolution of the international standards arena, and institutional bodies that are inclusive of those organizations that do not meet the current definition of a nation-centric or intergovernmental-type of standards body.

A barrier to better economic and social performance may be put up by the lack of inclusivity and openness in standardization, as per the current WTO concept of national/intergovernmental standardization, because key contributors may be ignored, or inhibited to participate. A truly global standards community can play a role in standards knowledge and institution building in developing countries and economies, helping to generate local innovation through collective strategic efforts and increased networks among industry, non-governmental organizations (NGOs), standards bodies, and government bodies. This can foster knowledge development and distribution, and bring diverse resources together to build local capabilities and capacity. By making use of global standards that are developed in a market-driven paradigm enabling and embracing openness, diversity, and respect, stakeholders in developing countries have direct access to knowledge to help drive improvements, innovation, and economic growth.

CONCLUSIONS AND RECOMMENDATIONS

As WTO addresses the future of world trade in an era of accelerated technological innovation and convergence, and digitalization, it is vital to also address how trade and innovation work together. Central themes to include are the impact of standards on innovation; standards development as part of the core of the innovation system (not only as add-ons); and the need for greater inclusivity to confront challenges and realize the opportunities presented by globalization and the digitalization of the world. Good technical content in a standard promotes confidence in, deployment of, and innovation on the technology standardized. A good standard should reflect at least state-of-the-art scientific and technological developments. The TBT Agreement, when assessing the risk of a given technical regulation (standard), states that an element of consideration is "available scientific and technical information."¹² Confidence in the integrity and quality of a standard will help promote its widespread use, and will contribute to innovation. To ensure that comprehensive scientific and technical information has been contributed and considered, greater inclusivity in the process is needed. Greater inclusiveness and closer cooperation, and thus a more level playing field, can be realized through an explicit acknowledgement of the value of the standards-setting and developing bodies that follow a globally open, market-driven paradigm.

This will require that dialogue and consideration of the concept of standards and standardization progress beyond nation-centric and intergovernmental arrangements. It will also require the direct recognition of associated contributions and standards from communities of experts, who cooperate, exchange information, build knowledge, and foster innovation on a global scale at all phases of standards development, working in the construct of universal openness.

Well-developed standards serve as a form of knowledge transfer, as noted in the Preamble of the TBT Agreement, and are particularly valuable to countries that do not have the resources to participate or develop standards themselves. In particular, many globally used and implemented standards, which seem to fall outside of the

¹² For the full text of the WTO TBT Agreement, see http://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm.

concept of standards produced by international standards bodies in accordance with the current WTO, can be directly utilized by developing countries. As it stands today, these contributions are not sufficiently leveraged for innovation and capacity building. WTO's Economic Research and Statistics Division staff working paper on "International Standards and the WTO TBT: Improving Governance for Regulatory Alignment" makes a suggestion for a more simplified vision for governance of international standards setting, with a greater focus on the substantive content of the standard and the manner in which it has been developed. It further states that focusing on how standards are developed and set (procedures) could help promote improved national coordination, and focusing minds on technical issues and related policy questions could create a support system for coordination (Wijkstrom and McDaniels 2013). For such a support system to be effective, barriers to participation need to be removed.

Innovation is the major source of growth and welfare for the world economy. Effective and efficient deployment of standardization promotes innovation. A priori globally open standards create win-win dynamics, encouraging innovation and growth. Businesses with a desire to commercialize emerging technologies are part of a developing business "ecosystem," and the better the opportunity to exploit the networks in the ecosystem, the faster the growth of the market for their products. Universal growth and social progress can be fostered much more rapidly and efficiently through an inclusive, open, and global economy that supports new business opportunities; enables commerce between all parties in dynamic ways; opens new territories; encourages competition; expands market presence; and creates new business models. The principles expressed in the OpenStand initiative provide a framework for standards development in an increasingly global market with diverse needs, via respectful cooperation between standards organizations and actors, including adherence to the fundamental principles of due process, broad consensus, transparency, balance, and openness. These are also tenets of the WTO TBT Code of Good Practice.

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