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AN INTERNATIONAL STANDARDS DEVELOPER: IEEE Adheres to the WTO Principles for International Standardization

*PREPARED BY THE IEEE STANDARDS ASSOCIATION BOARD OF GOVERNORS
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The *Agreement on Technical Barriers to Trade (TBT Agreement)* is a central defining document of the World Trade Organization (WTO). Designed to ensure that WTO Members' technical regulations, standards, and conformity assessment procedures do not create unnecessary obstacles to trade, the *TBT Agreement* additionally recognizes the important role of non-governmental standards organizations in setting national and international standards, and in certifying compliance with such standards.

The WTO's TBT Committee has adopted a *Decision on Principles for the Development of International Standards, Guides and Recommendations*, which should be adhered to when developing international standards. IEEE, a non-governmental organization involved in developing international standards, adheres to and supports the principles and requirements of the *TBT Agreement*. In particular, IEEE operates in active agreement with the WTO principle that standards should not create unnecessary obstacles to trade, and whenever appropriate, should specify requirements in terms of performance rather than design or descriptive characteristics. The subsequent paragraphs document IEEE's adherence to the six principles of the TBT Committee's *Decision* on International Standards.

Transparency: "All essential information regarding work programmes, as well as on proposals for standards, guides and recommendations under consideration and on the final results should be made easily accessible to at least all interested parties in the territories of at least all WTO members." — IEEE maintains current information on all of its standards projects on its myProject™ platform, the IEEE Standards Association's internet tool that allows *any* party (membership not required) to view both projects and topics of interest. myProject also includes such information as the scope and purpose of a proposed standard, contact information, and more. Access is granted through an IEEE Web Account, which is [freely available from the IEEE website](#).

IEEE also regularly publishes on its public website a work program of proposed standards under consideration. Anyone wishing to submit comments regarding a proposed standard may do so through the contact information provided. The

relevant IEEE standards committee must review and provide a response to all comments submitted during the committee's formal 30-day review of a proposed standard and the subsequent 60-day public consultation. For those lacking internet access, the on-line material is also available in print. Finally, IEEE publishes its standards within three months of their approval.

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 the participation at the policy development level and at every stage of standards development." — Membership in the IEEE Standards Association is open to all parties, independent of their nationality. The IEEE Standards Association ensures that all members have meaningful opportunities to participate in the IEEE standards development process as well as in the governance of that process. As stated in the IEEE Policy on Nondiscrimination, "IEEE is committed to the principle that all persons shall have equal access to programs, facilities, services, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by IEEE policy and/or applicable laws."

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 favour the interests of, a particular supplier/s, country/ies or region/s. Consensus procedures should be established that take into account the views of all parties concerned and to reconcile any conflicting arguments." — The approval and publication of an IEEE standard confirms that this work product represents a consensus of the parties who have participated in its development and review. Every balloted, approved, and published standard must attain a technical approval rating of at least 75% of all votes submitted. IEEE's requirements for achieving consensus require that all views and objections be considered, including those of the minority, and that a concerted effort be made toward resolution of any and all documented concerns. A formal appeals process is available to address technical and procedural disputes. Impartiality is ensured as participants in the balloting process are required to declare their affiliations and to classify themselves according to the interests they represent. Balance is achieved by not permitting any single interest category to comprise 50% or more of the final balloting group. Each standard is reviewed by the IEEE Standards Association Standards Board prior to approval to ensure that all requirements have been met.

Effectiveness and Relevance: "In order to serve the interests of the WTO membership in facilitating international trade and preventing unnecessary trade barriers, 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. They should not distort the global market, have adverse effects on fair competition, or stifle innovation and technological development. 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.” — IEEE makes all possible efforts to ensure that its standards meet market needs and take into account the most advanced scientific and technological developments. IEEE standards are reviewed regularly to ensure that they have remained technically relevant; and they may be revised as often as deemed appropriate by technical experts in accordance with market and technology trends. In order to facilitate trade and ensure that standards do not give preference to the characteristics or requirements of specific countries or regions and are not used as barriers to market access, IEEE supports and encourages global collaboration, development, and adoption of standards in partnership with industry, governments, and the public. IEEE standards are developed by a broad group of technology experts, drawn from its 160-plus country membership base and from interested parties outside this membership, resulting in globally accepted and used technical standards. For example, IEEE 1588, which defines a Precision Time Protocol (PTP) that can improve time synchronization accuracy to the microsecond and nanosecond range over a local area network (LAN), is used worldwide in the data acquisition, industrial automation, telecommunications, military, and power industry fields. The IEEE 802.11 Wireless LAN suite of standards also has huge global reach. These significant international standards specify the operating characteristics of billions of low-cost wireless LAN interfaces implemented in consumer and commercial devices as diverse as smartphones, televisions, laptop computers, and routers. Thus these standards enable multi-vendor interoperability, facilitating the worldwide growth of a LAN ecosystem of users and providers of silicon, software, systems, and services.

Coherence: “In order 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 this respect, cooperation and coordination with other relevant international bodies is essential.” — IEEE coordinates with industry, governments, associations, and numerous other organizations in the development of standards. This is accomplished through established liaisons with other organizations, cross-pollination of membership, joint standards development and adoption agreements, and a strategic preference for technical global collaboration.

Development Dimension: “Constraints on developing countries, in particular, to effectively participate in standards development, should be taken into consideration in the standards development process.” — As members of the IEEE Standards Association, participants in developing countries engage electronically in the development of IEEE standards by, for example, submitting comments during a

formal consensus ballot without extensive or long-distance travel. Anyone in the world can participate in developing IEEE standards, and IEEE makes an effort to reach out to both individuals and entities in developing countries. IEEE has a discounted membership program for individuals in developing countries that offers substantial savings. Discounted membership fees and electronic participation are just two examples of IEEE's efforts to accommodate constraints on participation from interested stakeholders in developing countries with nascent economies.