

美国标准战略 United States Standards Strategy

北滨医疗（2016年1月24日）

United States Standards Strategy

美国标准战略

OPEN AND INCLUSIVE • MARKET DRIVEN • SECTOR BASED • CONSUMER FOCUSED • GLOBALLY RELEVANT
坚守开放包容 • 让市场驱动 • 基于产业板块 • 以消费者为重 • 于全球有益

The *United States Standards Strategy* is a revision of the *National Standards Strategy for the United States (NSS)* that was approved in August 2000. The first NSS reaffirmed that the U.S. is committed to a sector-based approach to voluntary standardization activities, both domestically and globally. It established a standardization framework that was built upon the traditional strengths of the U.S. system — such as consensus, openness, and transparency — while giving additional emphasis to speed, relevance, and meeting the needs of public interest constituencies. Strategic and tactical initiatives contained within this framework were developed so that they could then be used by diverse interests to meet their own national and individual organizational objectives.

此份《美国标准战略》文件是对于2000年通过发布的《美国国家标准战略》的修订。先前的《美国国家标准战略》版本重申肯定美国在国内和在全球致力于基于产业领域的、自愿性质的标准化工作思路。这个思路使得我们标准化工作的设计框架考虑得以依托美国体制的传统优点 – 比如对于共识、开放、透明的追求，同时也对标准建设速度、标准适用性和满足公共利益团体需要的期望给以额外重视。先前的版本在这个思路框架下做的战略性和战术性的举措，使得开发的标准得以服务各个利益团体的各种全国范围性的和单个组织机构范畴的目标。

The revision of the NSS is now known as the *United States Standards Strategy (USSS)*. The name change recognizes globalization and the need for standards designed to meet stakeholder needs irrespective of national borders. The name also reflects a standardization environment that incorporates new types of standards development activities, more flexible approaches, and new structures.

原版《美国国家标准战略》现在改名为《美国标准战略》，反映了对于全球化趋势的认识，对于设计出满足不分国界的利益攸关者需求的标准的认识。新名称也反映了当前标准化工作的新形势，包括新型标准开发活动、更灵活的标准开发方法和开发架构。

The *Strategy* was developed through the coordinated efforts of a large and diverse group of constituents representing stakeholders in government, industry, standards developing organizations, consortia, consumer groups, and academia. Throughout the process, all the participants expressed a commitment to developing the USSS in a way that was open, balanced, and transparent. The result is a document that represents the vision of a broad cross-section of standards stakeholders and that reflects the diversity of the U.S. standards system.

这个标准战略的建立，得益于许许多多的，多元化背景的，代表了政府、产业界、各标准开发组织、联合组织、消费者团体和学术界团体的协同努力。在整个标准战略的制定过程，所有参与者都展示了对于开放、平衡和透明原则的坚守。其成果是这一份文件，它代表广泛的各界利益攸关者的愿景，也反映了美国标准体制的多样化。

The members of the United States Standards Strategy Committee gratefully acknowledge the contributions of everyone who assisted in the development of this text.

美国标准战略委员会的成员充满感激地在此章扬所有帮助制定这个文件的人士的贡献。

DEVELOPER 开发人

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Importance of Standards

Weights and measures may be ranked among the necessities of life to every individual of human society. They enter into the economical arrangements and daily concerns of every family. They are necessary to every occupation of human industry; to the distribution and security of every species of property; to every transaction of trade and commerce; to the labors of the husbandman; to the ingenuity of the artificer; to the studies of the philosopher; to the researches of the antiquarian; to the navigation of the mariner, and the marches of the soldier; to all the exchanges of peace, and all the operations of war. The knowledge of them, as in established use, is among the first elements of education, and is often learned by those who learn nothing else, not even to read and write. This knowledge is riveted in the memory by the habitual application of it to the employments of men throughout life.

度量衡可能是人类社会每一个个体的生活必需品，它进入了每一个家庭的经济安排和日常事务。它对人类经营的每一个行业，对每一种资产的分配和保障，对每一笔商品交易和商业活动，对农夫的劳动，对技师的精巧，对哲学家的研究，对文物收藏者的研究，对水手的导航，对士兵的行军，对所有和平的交流，对所有战争的操作，都是必须的。在已建立的应用中，度量衡知识是排列第一的教育内容，即使那些在其它知识方面什么也不学，甚至连读写都不学的人，都常常会学些度量衡。度量衡的知识通过贯穿一生的就业中的惯常应用被牢牢记住。

— John Quincy Adams

from the *Report on Weights and Measures by the Secretary of State*
made to the Senate on February 22, 1821

— 约翰·昆西·亚当斯

摘自国务卿的度量衡报告

1821年2月22日提交参议院

Today, more than ever, standards are an imperative undertaking. Standards are the building blocks for innovation and competitiveness. Our nation's ability to compete and lead in a rapidly changing global economy is closely related to our leadership in the development and effective use of standards and standardization processes. Standards provide the common language that keeps domestic and international trade flowing. It is difficult to overestimate their critical value to both the U.S. and global economy.

今日世界，标准化比任何时候都不可或缺。标准是创新与竞争力的基石。在一个日新月异的全球经济，我们国家竞争力和领导力，与我们开发和有效实施标准以及标准化工作密切相关。标准提供了保持国内和国际间贸易流通的共同语言，它对美国以及全球经济的价值是难以估计的。

— Patrick Gallagher, Director, National Institute of Standards and Technology,
2010

— 派崔克·盖勒，国家标准与技术研究所主任

2010年

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I — Introduction 导论

Are standards important? The quotes on the previous page show that while the details have changed over time, standards are more essential today than at any time in our nation's history. Voluntary consensus standards are at the foundation of the U.S. economy. The U.S. standards system promotes the public good, enhances the competitiveness of U.S. industry, and contributes to a liberalized global trading system. This "essential infrastructure" is therefore important to everyone, and it is important that everyone understand that and work towards maintaining and improving the system.

标准重要么？上面的引言表明，虽然细微处随时代而改变，标准比我们国家历史上任何一个时刻都更加关键。美国标准体系促进公共利益、增强美国工业竞争力、并有助于一个自由开放的世界贸易体系。因此标准作为一个“关键基础设施”对每一个人都重要。同时，让每一个人都理解标准对于他们的重要性并致力于维护和改进这个标准体系，这也很重要。

The United States is a market-driven, highly diversified society, and its standards system encompasses and reflects this framework. This framework is viewed as a positive attribute; a standards system is strengthened whenever standards developers share a common vision for meeting stakeholder needs. It is important for public and private sectors to share this common vision, since they provide the people, the resources, the technical contributions, and the intellectual vitality that underpin the U.S. standards system. The active involvement of government at all levels and all places, i.e., federal, state, and local, is key to both the development of the vision and the implementation of a standards strategy for the United States.¹

美国是一个市场驱动的高度多元化社会，它的标准体系包含和反映了这个设计框架。这个设计框架被视为一个优点，因为每当标准开发者共享一个致力于满足利益攸关者需求的共同愿景时，这个标准体系就会更强有力。公共（政府）板块和民营公司板块具备对这个愿景的共识也很重要，因为公共政府和民营机构的人力、资源、技术贡献以及智力活力，为美国标准体系提供支撑。各级政府（联邦、州、地方），在各个场合的积极参与，对于愿景的构建和一个美国标准战略的实施都是一个关键。

Standards are essential to a sound national economy and to the facilitation of global commerce. The global standards landscape is rich with entities, systems, and processes, and both the U.S. government and private sector participate in international standards activities in a variety of ways: through treaty organizations where governments are members; through private, voluntary organizations where the United States is represented by a single "national body" organization; through professional and technical organizations whose membership is on an individual or organizational basis; and through consortia, whose membership is typically technology based.

标准对于一个健全的国家经济和全球贸易的便利十分关键。全球标准化工作有众多机构组织介入，建立了形形色色的标准体系，依托各式各样的标准开发流程。美国政府和私营板块的机构也都以各种方式参与国际标准的活动。这些方式包括，（1）国际间标准协约组织，美国及各国政府作为会员参与；（2）国际私营自愿性标准组织，美国指定一个“国家机构”代表美国参与；（3）基于专业或技术的组织，美国方面的专业人士和组织各自以会员身份参加；（4）技术联合体，美国相关方面以成员方式参加。

The American National Standards Institute (ANSI), in its unique role as the leading U.S. organization for coordinating and promoting voluntary consensus standards and the U.S. representative in non-treaty international and regional standards-setting activities, has brought together a cross-section of public and private sector² interests

¹ Unless a more specific reference is included, "government" should be read as government at all levels. 除非特殊解释，“政府”应该被解读为各级政府。

² The word "sector" is used in two different meanings in this document. The first use divides the world into the "public sector" and the "private sector," distinguishing between the roles of government and non-government. The second use refers to a technology area or industry segment where customer needs dictate a coherent and consistent approach to standardization. This use is sometimes called "industry sector" or "market sector" but the simpler term "sector" is used in this document to include all interested parties (government, academia, consumer interests, standards development organizations, professional societies, trade associations, etc.) and not just commercial interests. The context should make clear which meaning is applicable. “板块 (sector)” 在本文件中被用来表示两个不同的意思。第一用来将世界分为“公共机构”和“私营机构”，区分政府和非政府角色。第二用来指特定的“技术领域”或者“工业领域”，在这些领域中客户需求要求一个连贯且一致的标准化思路和方

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to reexamine the principles and strategy that guide how the United States develops standards and participates in the international standards-setting process.³ The development of this *United States Standards Strategy* has emerged from these deliberations to meet the need for a statement of purpose and ideals and to provide a vision for the future of the U.S. standards system in today's globally competitive economy.

美国国家标准学会在协调和促进自愿共识标准工作中是一个领头羊机构，在非政府协约性质的国际和地区标准制定活动中是美国的代表。美国国家标准学会依托它的这个独特的角色，将政府和私营板块各界的各种利益体聚集一起，重新审视美国怎样开发标准、如何参与国际化标准制定的原则和战略，通过这些探讨，得以形成一个关于美国的目的和美国的理想的陈述，并构建在当今全球化竞争经济体里一个未来美国标准体系的愿景。

II — Imperatives for Action 采取行动的迫切性

The global economy has raised the stakes in standards development. Competition for the advantages that accompany a widespread adoption of technology has reached a new level, and the impetus to develop globally accepted standards is greater now than ever before.

全球经济提升了标准开发的利害关系。技术的广泛采纳赋予优势，竞取这种优势日益剧烈，建造全球接受的标准积极性比过去任何时候都强。

Globally 从全球的角度

- Global standardization goals are achieved in the United States through sector-specific activities and through alliances and processes provided by companies, associations, standards developing organizations, consortia, and collaborative projects. Increasingly, new standards development challenges (smart grid, healthcare, energy efficiency, nanotechnology, cybersecurity, etc.) require significant cross-sectoral collaboration, and new models are evolving to serve these needs.
全球标准化目标在美国的实现，依托基于特定产业板块的标准化活动，依托公司、协会、标准开发组织、联合体、合作项目体彼此的合作关系和共同制定的流程。标准开发的新挑战（比如智慧电网、医疗健康、能源效率、纳米技术、网络安全等）
- This market-driven, private sector-led approach to global standardization is substantially different from the approach favored in many other countries.
- Emerging economies understand that standards are synonymous with development and request standards-related technical assistance programs from donor countries. Increasingly our trading partners utilize such programs to influence the selection of standards by these economies and create favorable trade alliances.
- Policies that protect patents, trademarks, and other intellectual property are not universally or rigorously applied. The standardization process must respect the rights of intellectual property owners while ensuring users have access to the intellectual property rights (IPR) incorporated into standards.
- When standards are utilized as non-tariff barriers to trade, the ability of U.S.-based companies and technologies to compete in the international marketplace is adversely affected.
- Standardization and the manner in which agreements are reached between suppliers and customers continue to evolve and are influenced by advances in technology. Stakeholders are no longer willing in all cases to operate within the boundaries of the formal standards system and they continue to explore new modalities of standards development. Organizations such as consortia and Internet-based processes that enable worldwide participation of stakeholders are creating an innovative environment that is becoming increasingly important in the global marketplace.
- The service industry sector has a significant and rapidly growing presence in the global economy and workforce. The United States must devote more attention to understanding the needs of the service industry sector and establishing service standards initiatives to meet those needs.

法。这个用法有时候叫做“工业领域”或“市场领域”，但是更简单的单词“sector”在本文中包括各种利益团体，包括（政府，学术界，消费者利益，标准制定组织，专业协会，贸易协会等），不仅指商业利益。上下文应该明确哪一种意思是适用的。

³ While it is recognized that assessment of conformity to standards plays an essential role in the standardization system, a decision has been made to focus this strategy solely on standards and not address the many complexities associated with conformity assessment. See National Conformity Assessment Principles for the United States.

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At home

- Investment by public and private sectors in the development of global standards is directly related to the health of the economy. Economic downturns produce reductions in the resources available for global standards development.
- Users of standards are increasingly aware of their importance and are demanding a U.S. system that can produce and deliver standards with maximum efficiency and minimum cost, eliminate duplication, and optimize the benefits of a decentralized system.
- Government agencies at the federal, state, and local levels are willing to invest in voluntary consensus standards that have been developed in accordance with globally accepted principles.
- The national interest in some emerging areas of standardization such as homeland security, smart grid, healthcare, energy efficiency, nanotechnology, and cybersecurity, demands a new level of coordination and effort, and will require the development of new ways for the public and private sectors, as well as large numbers of standards development organizations and consortia, to work together in order to preserve national competitiveness.
- The U.S. government has enhanced its efforts to coordinate agency standards activities and engagement and continues to recognize the integrity of the existing U.S. standards process both through active participation in standards development and as user of the standards for regulation and procurement.

III — Principles

It is well established in the community of nations that standards should meet societal and market needs and should not be developed to act as barriers to trade. In approving the World Trade Organization Technical Barriers to Trade Agreement, WTO members recognized that goal and established globally accepted principles as a framework to promote cooperation and discourage the use of standards as trade barriers. The U.S. standardization system is based on the following set of globally accepted principles for standards development:

- ***Transparency***
Essential information regarding standardization activities is accessible to all interested parties.
- ***Openness***
Participation is open to all affected interests.
- ***Impartiality***
No one interest dominates the process or is favored over another.
- ***Effectiveness and Relevance***
Standards are relevant and effectively respond to regulatory and market needs, as well as scientific and technological developments.
- ***Consensus***
Decisions are reached through consensus among those affected.
- ***Performance Based***
Standards are performance based (specifying essential characteristics rather than detailed designs) where possible.
- ***Coherence***
The process encourages coherence to avoid overlapping and conflicting standards.
- ***Due Process***
Standards development accords with due process so that all views are considered and appeals are possible.
- ***Technical Assistance***
Assistance is offered to developing countries in the formulation and application of standards.

In addition, U.S. interests strongly agree that the process should be:

- ***Flexible***, allowing the use of different methodologies to meet the needs of different technology and product sectors;
- ***Timely***, so that purely administrative matters do not result in a failure to meet market expectations; and
- ***Balanced*** among all affected interests.

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IV — Our Strategic Vision

Working from these principles, the U.S. standards community is strongly committed to the following strategic vision for standards development globally and at home.

Globally

- There is universal application of the globally accepted principles for the development of global standards.
- Governments rely on voluntary consensus standards as much as possible in regulation and procurement rather than creating additional regulatory requirements.
- The system is diverse and inclusive and supports flexible standards solutions. Consortia and forums are illustrative of that flexibility and are an integral part of the global standards system.
- The U.S. is committed to standardization that meets global needs. Standards activities are conducted by industry sectors in venues selected for their ability to meet those needs.
- Electronic tools are used effectively for the optimized production of global standards and to facilitate their dissemination throughout a global economy.
- Where a single national body organization represents the U.S. in an international organization, the U.S. national body promotes the *U.S. Standards Strategy* in both governance and technical programs. Examples include ANSI membership in the International Electrotechnical Commission (IEC), via the U.S. National Committee, and the International Organization for Standardization (ISO). In treaty-based organizations, the U.S. State Department and its preparatory process ensures U.S. viewpoints are advanced, for example at the International Telecommunication Union (ITU).

At home

- A cooperative process involving all stakeholders produces technically superior and unified standards that promote and strengthen U.S. global competitiveness.
- All U.S. interests work together to eliminate redundancy and overlap.
- Public and private sector management recognize the value of standardization at national and global levels and provide adequate resources and stable funding mechanisms to support such efforts.
- The U.S. standards system responds quickly and responsibly to provide standards that address national and international needs.

V — Moving Forward

The strength of standardization in the United States is a sectoral focus supported by a dynamic infrastructure.

The sectoral focus comes from the participants — companies, government agencies, public interest organizations, and talented individuals — who understand what is needed in their sector, and the standards developers through which they work to meet those customer needs. The sectoral and cross-sectoral approaches allow interested parties to address their own issues and develop working methods that fit the problems at hand, since no single standards system can satisfy all needs. This allows efficient standards development and fosters innovation and competition. When cross-sectoral issues arise, sector definitions change, or in venues where a single national voice is required, the infrastructure provided by the American National Standards Institute provides facilitation and mediation.

A sectoral approach recognizes that there is no simple prescription that can be handed down to fit all needs. Sectors must develop their own plans; the purpose of this strategy is to provide guidance, coherence, and inspiration without constraining creativity or effectiveness. The *U.S. Standards Strategy* therefore consists of a set of strategic initiatives having broad applicability that will be applied according to their relevance and importance to particular sectors. Stakeholders are encouraged to develop their own initiatives where needed and this strategy suggests some that have widespread applicability. Today's challenge is to bring these areas of sectoral expertise together to address issues that cut across sectors and to bring diverse parties together to develop not only standards but roadmaps for suites of standards.

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As standards opportunities such as cybersecurity, healthcare, and the smart grid continue to arise, the challenge will be to preserve the strengths of the United States sectoral approach while developing innovative new ways in which standards developers, consortia, and government can collaborate most productively.

1 – Strengthen participation by government in development and use of voluntary consensus standards through public-private partnerships

Government reliance on voluntary consensus standards continues to grow. Public Law 104-113, the National Technology Transfer and Advancement Act (NTTAA), remains the cornerstone at the federal level for promoting the use of voluntary consensus standards for both regulation and procurement. Our vision of the future involves building on our successes in this area and encouraging government, consumers, and industry to use voluntary standards developers as partnership venues to create solutions to support national objectives. The key to such partnerships is participation, which requires support and resources from government policy makers at all levels. Tactical initiatives include:

- *ANSI, standards developers, government, and industry* should partner to identify proposed solutions where government interests could be addressed by the use of voluntary consensus standards and work together for a common solution.
- *Government* should increase participation in the development of voluntary consensus standards.
- *ANSI and standards developers* should provide state and local governments with ways to easily identify where their interests are being addressed and mechanisms for participating in voluntary consensus standards development.
- *The U.S. government* should use existing relationships with state and local government and its responsibilities under NTTAA to support greater use of voluntary consensus standards.
- *ANSI and standards developers* should raise awareness of policy makers on the benefits of voluntary consensus standards and the importance of participating in their development.

2 – Continue to address the environment, health, and safety in the development of voluntary consensus standards

Consideration of the environment, health, and safety has always been a key concern of the U.S. standards system and will continue to be so in the future. It is important to take a balanced approach to ensure that the needs of all stakeholders are considered and that decisions are based on a preponderance of objective evidence. Active participation by government, consumers, and industry on voluntary consensus standards committees is essential to forge the trust and synergy needed to develop standards that meet society's needs today and tomorrow. Tactical initiatives include:

- *Standards developers* should establish specific guidance to encourage participants to consider the environment, health, and safety as integral aspects of their work.
- *Government* should participate in voluntary consensus standards development efforts to ensure that they meet public objectives related to the environment, health, and safety.
- *Industry* should participate in standardization activities and consider the environment, health, and safety while ensuring that the resulting standards add value.
- *ANSI* should foster consideration of environmental, health, and safety, requirements in U.S. and international standards where appropriate.
- *Consumers* should increase participation in the development of voluntary consensus standards to ensure that they meet public objectives related to the environment, health, and safety.

3 – Improve the responsiveness of the standards system to the views and needs of consumers

The representation of consumer⁴ interests in the U.S. standards system is essential to ensure that the individual's needs are being considered and addressed. Today's consumers are concerned about such issues as product compatibility; quality of products and services; ease of use and accessibility; the environment, health, and safety;

⁴ Consumers are defined as those individuals who use goods or services to satisfy their individual needs, rather than companies, government agencies, or other organizations that use goods or services.

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deceptive trade practices; redress; and social responsibility. The emergence of the online market means more information and more choices are available to consumers. With its emphasis on balance, openness, and transparency, the U.S. standards system provides a valuable forum for the consumer voice to be heard. However, more is needed to make consumers aware of these opportunities and to encourage and facilitate their participation. Tactical initiatives include:

- *Standards developers* should identify, encourage, and support appropriate consumer representation on their committees, make virtual attendance at meetings possible through electronic means such as teleconferencing or collaborative meeting tools, and encourage consumer comment during public reviews.
- *Industry* should use consumer research as a basis for standardization initiatives and decisions.
- *Government* should strengthen its consumer-related programs and initiate standards information and participation programs as appropriate.
- *ANSI* should work with consumer organizations to educate them about standardization and encourage and support their participation in standards development.

4 – Actively promote the consistent worldwide application of internationally recognized principles in the development of standards⁵

A key goal of international standardization is to define requirements that products and services should meet to be acceptable in all markets. To ensure broad acceptance, members of the standards community have made considerable progress in establishing internationally accepted principles on how such standards should be developed. Our strategy seeks to encourage the consistent interpretation and application of these principles. Tactical initiatives include:

- *The U.S. standards community* should work to improve global relevance by promoting participation in standards processes by a broad cross-section of both domestic and international stakeholders, particularly in markets where the relevant products are used.
- *Stakeholders in the U.S. standards system* should seek, directly or through the U.S. national body where representation is by country, to reinforce the sectoral approach to standards development in regional and international forums and highlight the benefits of this approach.
- *The U.S. government* should continue to foster and support the unique character and strengths of the public-private partnership in standards development as it pursues trade and other international agreements, regulatory harmonization, and legislative and regulatory approaches.
- *The U.S. government and industry* should strongly and visibly coordinate their work in international forums to promote the consistent interpretation and application of internationally recognized principles on standardization, including those reflected in the WTO Technical Barriers to Trade Agreement and the Decision on Principles for the Development of International Standards.

U.S. stakeholders participate in standards development bodies around the world to achieve their objectives. The goal of all international standards forums should be to achieve globally relevant and internationally recognized and accepted standards that support trade and commerce while protecting the environment, health, safety, and security. To advance this goal, *U.S. stakeholders* should pursue the following tactical initiatives:

- Promote the consistent application of principles for developing standards in international standards development organizations as elaborated in the TBT Agreement, including the principles on global relevance.
- Encourage standards development forums to work together to address the need for standards on converging technologies that affect the interests of various stakeholder communities.
- Work with all stakeholders to ensure that voting procedures in international standards development bodies respect all views.

5 – Encourage common governmental approaches to the use of voluntary consensus standards as tools for meeting regulatory needs

⁵ “Internationally recognized principles,” including those highlighted in the Principles section of this document, are contained in the WTO Agreement on Technical Barriers to Trade agreement and the WTO TBT Committee’s Decision on Principles for the Development of International Standards. The text can be viewed online at http://www.wto.org/english/docs_e/legal_e/17-tbt.doc.

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Many standards are developed to meet regulatory needs. Governmental approaches to regulation, however, often differ, resulting in incompatible national and regional standards that add unnecessary expense and may limit trade. Global commerce will be facilitated if governments would apply common approaches to the use of standards as tools to meet regulatory needs. Standards developed through a voluntary consensus process have proven effective at meeting both regulatory and market needs in a variety of sectors. The following tactical initiatives would help advance this strategic goal:

- *Governments* should be encouraged to adopt compatible approaches to using standards to meet regulatory needs, and partner with all stakeholders to develop standards that have global acceptance.
- *Standards developers and industry* should work with governments to develop voluntary consensus standards that meet regulatory needs.
- *ANSI and government* should work together to improve the understanding among domestic and international stakeholders of the benefits of using voluntary consensus standards in regulation.

6 – Work to prevent standards and their application from becoming technical trade barriers to U.S. products and services

As tariff barriers have been reduced, technical standards have become more prominent as potential barriers to market access for products and services. Differing technical standards can significantly raise the cost of exporting to and importing from international markets or even prevent market access. The facilitation of global trade requires that more attention be given to preventing standards and their application from becoming market access barriers and addressing barriers which arise. Tactical initiatives include:

- *The U.S. government* should work with its counterparts in other countries and through intergovernmental organizations to ensure that standards facilitate global trade, and to minimize potential trade barriers and requirements for duplicative tests.
- *The U.S. government* should work with other WTO members to seek full implementation of the Technical Barriers to Trade (TBT) Agreement and annexes as well as decisions taken in the WTO TBT committee.
- *Government and industry* should identify and eliminate or minimize the effect of technical barriers to trade that result from technical standards and their application.
- *U.S. national bodies* should work with their counterparts in other countries to ensure that standardization is not used to develop trade barriers in organizations where representation is on a national basis.

7 – Strengthen international outreach programs to promote understanding of how voluntary, consensus-based, market-driven sectoral standards can benefit businesses, consumers, and society as a whole

Our national standards process offers enormous benefits to businesses, consumers, and society, facilitating innovation and strengthening economic competitiveness. But this process is not well understood by many outside the United States. U.S. stakeholders need to do more to help foreign stakeholders understand the benefits of the approach embodied in the U.S. standards system. Tactical initiatives include:

- *All stakeholders* in the U.S. standards development process — particularly industry, standards developers, and the U.S. government — need to devote more resources and greater efforts to helping stakeholders in other countries understand the U.S. process and its many benefits.
- *U.S. stakeholders* should promote policies and procedures in international forums that encourage the development of standards that are voluntary, consensus-based, market-driven, and globally relevant.
- Outreach efforts should be focused on countries that are still developing their standardization systems and offer important commercial market opportunities.
- Special attention should be given to using new communications technology, such as the Internet, teleconferencing, and other new modes of communication. This will facilitate contacts with non-U.S. stakeholders — particularly in newly developing markets — and will enhance their participation in standards-related activities.
- *ANSI* should play a leadership role in promoting dialogue with foreign standards organizations and in reinforcing outreach efforts of industry, standards developers, the U.S. government, and other stakeholders.

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8 – Continue to improve the process and tools for the efficient and timely development and distribution of voluntary consensus standards

In recent years, the U.S. standards system has made significant strides in the timeliness, relevancy, and compatibility of standards by taking advantage of technologies to promote online collaborative standards development and electronic distribution of standards. In the spirit of process improvement and in response to changing customer needs and evolving new technologies, all stakeholders in the U.S. standards system must continue to work together to build on these successes. Tactical initiatives include:

- *Standards developers* should continue to improve the working processes for voluntary consensus standards development and use standardized tools to facilitate global participation.
- *Industry, government, and consumers* should provide standards developers with feedback on their needs and how well standards developers are meeting those needs.
- *ANSI* should investigate the feasibility of a central repository for all information about standards — both approved and under development — and recommend a course of action for the U.S. standards community.
- *U.S. national bodies* should encourage similar improvement in the processes and tools in the organizations where they represent the U.S.

9 – Promote cooperation and coherence within the U.S. standards system

The diversity of the sector-based, decentralized U.S. standardization system can result in duplicative efforts and sometimes overlapping or conflicting standards. In many cases, apparent overlap or conflict is merely the reflection of different customer needs for different sectors or competitive approaches and solutions to new products. Duplication, where it does not add value, should be discouraged. Tactical initiatives include:

- *ANSI* should review its procedures to make sure that standards receiving the American National Standard (ANS) designation are relevant and minimize conflict with other standards.
- *ANSI and standards developers* should work together to eliminate areas of redundancy to make U.S. standardization processes more efficient and coherent. This should include publication of information about their work.
- *Industry, consumers, and government* should be proactively engaged with standards developers to minimize duplication of standards development activities.
- *ANSI* should continue to reach out to standards developing organizations and consortia not under the ANSI framework to promote its programs, principles, and tools to broader constituencies and explore ways to work with those broader constituencies to best serve U.S. needs.
- *Government* should provide timely information on proposed regulatory actions in order to minimize conflict with existing or proposed standards.

10 – Establish standards education as a high priority within the United States private, public, and academic sectors

Education programs covering the development and implementation of standards need to become a high priority within the United States. These programs must focus on the needs of leaders and top executives, those who participate in the development of standards, university and college students, and other interested parties. Tactical initiatives for all stakeholders, including *standards developers, ANSI, government, and academia* include:

- Develop new or significantly enhance existing standards education programs that address the significance and value of standards to the well-being of the United States and global economies.
- Develop or significantly enhance standards education programs that address the needs of specific groups within the United States. These programs must reflect the multidisciplinary environment in which standards development takes place and address national and international standards development procedures; the relationship between private and public sector standards; the environment, health, safety, sustainability, international trade, public policy, competition, legal, economic benefits, and strategic considerations; and how to balance the interests of stakeholders.

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- Enhance the NSSN database to enable its use in helping to minimize or eliminate unnecessary conflict and duplication among standards.
- Encourage universities and colleges within the United States to create standardization education programs in fields of study such as engineering, science, technology, government and public policy, business, economics, and law.
- Facilitate and enhance the creation of a communications network for standardization education programs among all interested parties in the private, public and academic sectors. Utilize Internet technology to the fullest extent possible to facilitate the development of e-learning and standardization education programs.

11 – Maintain stable funding models for the U.S. standardization system

There is no single method of funding the U.S. standardization system, and the U.S. recognizes the need to protect the pluralistic manner in which the standardization system is funded. If this standardization system meets public and private sector needs, then those who want the results should ensure that the necessary funding is provided.

The tactical initiatives that support this strategy focus on the need to educate and influence policy makers and decision makers, and stress the need for the individual organizations that comprise the U.S. system to be able to maintain their various funding models.

Tactical initiatives include:

- *Standards developers* should seek the participation and support of industry and government for voluntary consensus standards development. They should educate public sector policy makers, corporate leadership, and consumers in the value of the diverse U.S. standardization system, including their roles in the support of the National Technology Transfer and Advancement Act.
- *Government* should advance and respect policies at home and abroad that ensure the continued ownership and control of the copyrights and trademarks of standards developers.
- *Industry* should support standards development through participation of their experts, funding of research, and sharing of information useful in defining and setting standards requirements. They should also utilize, and support the use of, standards to produce goods, provide services, install products, and conduct all other aspects of business activity in their respective sectors.
- *All elements of the U.S. standardization system* should support policies that allow U.S. standards developers to participate in international standards development activity without jeopardizing their copyrights and trademarks, and that recognize the flexible funding models that exist within the United States.
- *Governments* at all levels, in their consideration of policies and legislation, should recognize the societal benefits of standards development organizations and their role in public health and safety.
- *Government* should recognize its responsibility to the broader public interest by providing financial and legislative support, and by globally promoting the principles of our standardization system. Global competitiveness of U.S. industry depends critically on standardization, particularly in sectors that are technology driven.

12 – Address the need for standards in support of emerging national priorities

The U.S. standardization system has contributed significantly to meeting a diverse range of private and public sector needs in a variety of industries. ANSI has risen to the challenge posed in areas as diverse as homeland security and nanotechnology, through the creation of standards panels that bring together all affected interest areas, both public and private sector, to achieve maximum impact for standards efforts. With threats to our national security and the development of new technologies that promise economic growth and improved quality of life, the U.S. standardization system must be prepared to respond to emerging national priorities as they are identified. Tactical initiatives include:

- *Government* at all levels should seek early collaboration with industry and standards developers to identify standards needed to meet emerging national priorities.
- *ANSI* should provide active coordination, where necessary, in areas relating to emerging national priorities to promote information sharing across all affected interest areas and minimize overlap and duplication of standards-related efforts.

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- *Standards developers* should proactively identify standards work in existence or underway that could support emerging national priorities.
- *Industry* should participate actively in efforts to identify needed standards and in the timely development of those standards.
- *Government, industry, and standards developers* should be proactive in addressing international implications of standards in support of national priorities.

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VI — In the Longer Run

This document represents an architecture for achieving goals. The proof of this strategy, however, will lie in the achievement of those goals. In that sense the document is also a challenge to all those involved in the standards system — and those who are not currently involved but are affected by it — to make the vision a reality. This will happen only when the architecture is translated into action. What hangs in the balance is the competitiveness of U.S. industry, the vitality of the U.S. economy, and a balanced global trading system.

The next steps will engage all concerned in the implementation of this strategy. Tactical issues must be addressed. This will require communication, cooperation, planning, and a commitment to action. In the longer run progress must be measured, and this strategy, like all plans made within the constraints of time, must be revisited and reevaluated. The American National Standards Institute will continue to serve as a mechanism for coordinating, integrating, and reporting progress in regular intervals.

Open and accessible, the U.S. standardization system has contributed its technology, in gigantic proportions, to other standardization models and to other societies. It is committed, not only to interests within its own territory, but to international standardization, and to a global trading system that is balanced and without obstacles. This strategy is designed to strengthen the standards system of the United States and all who benefit from it.

*The United States Standards Strategy was approved by the ANSI Board of Directors on December 8, 2005.
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