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Canada's Magazine of Standardization


The Canadian Standards Strategy
A Progress Report


## national standards system conference

march 25-27, 2002


This March, participants from throughout the National Standards System will gather in Mont Sainte-Anne, Quebec for Partners in progress, the very first National Standards System Conference. They'll share ideas and experiences, learn from one another, and chart the future course of standardization in Canada.

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The Canadian Standards Strategy-A Progress Report

# Takingstock <br> The Canadian Standards Strategy, two years later 



## The Honourable Allan Rock, Minister of Industry

Four years ago, the Standards Council of Canada first spearheaded the development of a national strategy. The initiative brought together the Standards Council, the people and organizations of the National Standards System, and standards stakeholders from across the country to consider what Canada's standards goals should be, and how best to achieve them. Two years ago, the Canadian Standards Strategy was officially released, and its implementation began.

Standards influence every aspect of our lives; they help to ensure better, safer and more efficient methods and products, and are an essential element of technology, innovation and trade. The Canadian Standards Strategy provides not only direction and leadership but also a foundation for growth.

By renewing our focus and purpose, the Strategy helps us ensure that standardization effectively serves the needs of all Canadians and of our country as a whole. On the global front, this includes promoting the work of the National Standards System, contributing to the development of international partnerships and improving Canada's access to global markets through standardization activities.

I commend the achievements of everyone contributing to the implementation of the Canadian Standards Strategy.

## The Canadian Standards Strategy

$T$be purpose of the Canadian Standards Strategy is to provide direction and leadership on how to use standardization to best advance the social and economic well-being of Canadians in a global economy. This includes, among other things, protection of health, safety and the environment, as well as the rewards of trade and economic competitiveness.

- Canadian Standards Strategy and Implementation Proposals


## It's been a long time coming.

Like standardization itself, the Canadian Standards Strategy has no clear starting point. You can trace its roots back to the establishment of the first modern standards organization in Britain in 1901, to the creation of the Standards Council of Canada in 1970, or to the development of the National Standards System in the following years.

Those events, and many more, helped to make standards and conformity assessment an essential element of today's global economy, and in doing so created the need for a coordinated national approach to standards and conformity assessment.

In 1998, the Standards Council of Canada responded to that need by setting out to develop a C anadian
Standards Strategy. Billed as "a national master plan to provide guidance on the standardization measures and priorities necessary to enhance Canada's economic, social, and environmental well-being," the Strategy would identify the most significant standards issues facing Canada and the actions standards stakeholders would need to take in order to address them.

The Standards Council assigned the development of the Strategy to a Stakeholders Advisory Council that included representatives from industry; federal, provincial and territorial governments; non-governmental organizations; standards and conformity assessment bodies and the Standards Council itself.

The development of the Strategy was a major undertaking for the Standards Council and the National Standards System. Appropriately, its official release in March 2000 became a major event. Simultaneous launch events linked by a live satellite broadcast took place in Ottawa, Halifax, Montreal, Toronto, Saskatoon, Calgary, Vancouver and Yellowknife. (For more on the launch, see the 2000 special edition of CONSENSUS.)

The object of all the excitement was a slim volume titled Canadian Standards Strategy and Implementation Proposals. Its contents, the product of hundreds of hours of work, identified eight elements representing Canada's most critical standardization priorities for the years to come.

## On the international front...

1. Participate in the development of international standards, and use standards adopted or adapted from internationally accepted standards to the greatest extent possible.
2. Prioritize standardization efforts and resources within three key areas:

- those in which Canadians have a major interest in health, safety, the environment or other social issues
- trade sectors in which there are existing or potential benefits to Canadians
- harmonization of standards where appropriate, and especially within North American markets.

3. Monitor and evaluate innovations in conformity assessment practices, and actively pursue new international arrangements of anticipated benefit to Canada.

## On the domestic front...

4. Actively communicate the role of standards, and the benefits and challenges associated with standardization processes and products, among public- and privatesector decision makers at all levels of Canadian society.
5. Position standardization processes as a necessary complement to regulatory processes, and encourage the use of standards in the development of Canadian public policy.
6. Develop mechanisms to guide standardization activities in current and emerging social and economic issues.

## Strengthening the foundation...

7. Improve system responsiveness and enhance participation in all standardization activities.
8. Forge partnerships and strategic alliances among current and potential participants in standardization activities.

The other major element of the Strategy document was a set of 23 implementation proposals outlining specific actions that would have to be taken to turn the Strategy into a reality.

Energized by the cross-country launch event, the Standards Council and the people and organizations of the National Standards System set to work implementing the Strategy. Now, two years later, it's time to step back and see what has been achieved.

In the pages that follow, you'll find detailed reports on each of the Strategy's 23 implementation proposals. You'll learn why each of these activities is a priority for Canadian standards stakeholders, what's been done in the past two years, and what work remains to be undertaken.

We hope that you'll also discover projects where your skills, knowledge and influence are needed. Whether you participate directly in the Strategy's implementation, or indirectly advance its goals through your daily activities, we hope that you'll join us in applying this national master plan.

For more information on the Canadian Standards Strategy, please visit the Standards Council's Web site at http://ww.scc.ca.

# The Canadian Standards Strategy Implementation Plan 

## A Progress Report



## Create and maintain a framew ork for developing national positions

Standardization has always been an important element in trade. In recent years, it has also become part of international agreements on health, security, the environment and other critical issues. The number of standards, conformity assessment and trade forums undertaking standards-related initiatives that affect Canadian interests is constantly increasing.

Canada needs to be able to consistently and effectively express its standardization interests and its underlying trade and social policy interests in a variety of international forums. Doing so will require a process and framework for
channeling competing ideas and interests into a Canadian policy position.

In response to this need, the Standards Council's Intergovernmental Affairs and Trade Branch has developed a number of documents that outline essential principles in the creation of sound policy. They also provide some practical approaches for managing Canada's involvement in various regional and international standardization initiatives. These documents include:

- Strategy for Participation in Global Conformity Assessment Accreditation-Based Arrangements: Agreements intended to ensure the international acceptance of conformity assessment results are effective at facilitating trade, but can be costly and labor-intensive to establish and administer. This document presents a strategic approach intended to direct the Standards Council's participation in these arrangements in order to ensure that specific objectives are reflected.
- Guidance Document for Entry into Voluntary Conformity Assessment (CA) Arrangements: This paper emphasizes that consistency, consultation and communication are essential elements to consider when entering such agreements.

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- Framework for Hosting Standardization Related Events: Playing host to events such as major international meetings can increase Canada's profile around the world and promote standardization at home, but doing so is often an expensive undertaking. This paper proposes a classification system for standardization events and a set of decision-making criteria for proposed hostings
- The Free Area Trade of the Americas (FTAA) Plan of Action - Relationship to / Impact on SCC Strategic Agenda: The proposed FTAA agreement will advance many of the Standards Council's objectives, but can also be expected to have a significant impact on its resources. This document discusses possible links between the FTAA Plan of Action and the Standards Council's strategic agenda.

All of these documents are available to the public through the Standards Council.

The publication of these documents will contribute to the development of a more generic framework and approach for developing national policy positions. This document will describe the Standards Council's current operating environment, outline the needs and objectives of key National Standards System stakeholders and describe an adaptable approach to the creation of national standardization policy positions. The framework is scheduled for consultation and comment within the next few months and will be presented to Council later in the year.


> Establish a broader mandate for technical committees under CNC/ISO and CNC/IEC

The primary task of the Canadian National Committees of the International Organization for

Standardization and the International Electrotechnical Commission (CNC/ISO and CNC/IEC) has been to develop and present Canadian positions on the standardization issues being considered by these two organizations. Despite their influence, however, ISO and IEC are not the only standards forums of significance to Canadians: important work is also taking place in the U.S. and at the regional level. Canada needs to ensure that it can participate in these other forums, and that it does so in an effective and coordinated manner. Expanding the mandate of CNC/ISO and CNC/IEC's technical subcommittees will help to achieve this.

The Standards Council has always encouraged Canadian participants in IEC and ISO to also pay close attention to what is going on at the national level. This linkage between national and international efforts has been formalized over the last 15 years through the harmonization of the national committees operated by Canadian standards development organizations (SDOs) with the international Canadian sub-committees and advisory committees (CSCs and CACs). Canadian standards organizations are also modifying their committee structures to mirror those of IEC and ISO, permitting more effective harmonization.

At the policy level, there is significant harmonization between CNC/IEC and the SDOs' strategy-setting committees. This reinforces the ability of Canadians to establish Canadian standards that are based on those of IEC, and to work towards IEC standards that can be adopted in Canada because they reflect Canadian interests and practices.

The next stage in the process is to establish a mechanism to link Canadian participants in international activities with their allies in Canada's major trading partners. Many CSC and CAC members take part in US SDOs and work closely with their US counterparts. Some CSCs and CACs have formal liaison arrangements with their US equivalents. Last year, Canada and the US created a bi-national committee for IEC's technical committee on electromagnetic field exposure (IEC/TC106). The committee discusses positions and agrees on joint strategies, but both countries continue to issue individual positions.

The IEC national committees of Canada, Mexico, and the US are developing an Electrotechnical Cooperation of the Americas (ECA) to promote cooperation between IEC participants from North, Central, and South America. Plans for the ECA should receive approval in mid-2002.


## Take leadership in developing international standards for electronic commerce

The widespread adoption of electronic commerce will require international standards for both technical and management issues, including security, privacy, data integrity and programming languages. Work on these standards is underway in a variety of forums around the world.

Canada has been a leader in the development of strategies and standards for electronic commerce. We were a major initiator and consensus builder in the OECD's Global Action Plan for Electronic Commerce, for example. The challenge that now faces Canada is to maintain its leadership role and to have Canadian standards and practices adopted internationally.

The first step in the development of a coordinated Canadian approach to electronic commerce standardization issues was the Joint Open Forum on Standardization Enablement in Electronic Commerce held in March 2001. Sponsored by the Standards Council, the Information Technology Association of Canada (ITAC), Industry Canada and the Telecommunications Standards Advisory Council of Canada (TSACC), the forum brought together more than a hundred participants to discuss needs and issues related to standardization in electronic commerce, both in Canada and internationally. The forum led to the establishment of a multi-stakeholder business team that is examining current standardization issues and developing recommendations for action by stakeholders.

The Bureau de normalisation du Québec (BNQ) and the Canadian Standards Association (CSA) are developing a joint standard on business-to-consumer electronic commerce. The Standards Council has provided a forum on its Web site to assist this effort.

The Standards Council and its partners are continuing to monitor and participate in work underway in Europe and elsewhere in the world.


## Engage developing countries in international standardization

The proliferation of trade agreements has highlighted sharp differences in the capacity of developing and developed countries to participate in international standardization. Developing countries need an established standardization infrastructure to take part in the global trading system. However, many can't adequately participate in international standards development and lack the basic technical infrastructure to carry out testing and certification. Few have recognized accreditation systems.

A coordinated approach to providing standards assistance to developing countries would provide a major contribution to their standards needs. By harmonizing standards and technical requirements with their trading partners, developing countries can open markets, attract investment and encourage technology transfer. Adopting existing standards and regulations can also help developing countries to protect the health and safety of their citizens and the environment, without incurring the expense of researching and developing such measures.

Developing countries that support such efforts can benefit from increased trade through new sources of supply, new markets for their products and services, and more widespread adoption of their technologies and practices.

The Standards Council has been involved in technical assistance projects for a number of years, both bilaterally and through regional and international standardization bodies. Now we are increasing our efforts on a variety of fronts. The International Organization for

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Standardization's Committee on Developing Country Matters (DEVCO) is an important discussion and information-sharing forum. To coordinate Canadian participation in ISO/DEVCO, the Standards Council established a Canadian Advisory Committee on DEVCO (CAC/DEVCO) in 2000.

The Standards Council is working with partners such as the Department of Foreign Affairs and International Trade and the Canadian International Development Agency to ensure that standards and conformity assessment issues are recognized as priority areas for development assistance.

Future directions may include assisting countries in the development of their own accreditation infrastructure. For example, the Standards Council recently took part in an initiative to develop an accreditation program for drinking water testing laboratories in Latin America and the Caribbean.


# Develop, implement and maintain processes for setting priorities for standardization activities in the areas of health, safety, the environment and other social issues 

Years ago, standardization was primarily concerned with tangible technical issues in business and industry. Today, standards and conformity assessment are playing a growing role in areas such as health, safety, the environment and other social issues. While standardization offers considerable promise in these areas, the broad range of potential issues, and the difficulty of achieving consensus in the more contentious subjects, can
lead to concerns about consistency and the efficient use of limited resources. It will be necessary to focus the attention of standards participants on a limited set of widely-accepted priorities in order to achieve objectives.

The Consumer and Public Interest Committee (CPIC) is the Standards Council's primary vehicle for examining issues related to consumers and the public interest. The committee is developing a priority-setting mechanism that will help to identify significant standardization projects affecting health, safety, the environment and other social issues. In this effort, CPIC is working closely with other advisory committees, Health Canada, Environment Canada, provincial and territorial ministries, Pollution Probe, the Consumers Association of Canada and other public interest groups.

Some of the factors CPIC has considered in establishing priorities are the potentially vast range of issues that could be addressed, possible priority setting criteria, and broad scanning versus stakeholder consultation as a means of identifying positions.

The model that CPIC has developed establishes priorities for standardization work based on the following criteria:

- the seriousness of the issue or problem,
- the potential impact of standards,
- feasibility,
- support and focus,
- the time frame, and
- risks and obstacles.

Once the priority-setting model is finalized, the committee plans to incorporate it into its terms of reference. This should ensure that the CPIC work plan reflects the need for standardization in the areas of health, safety, environment and other social issues, and that it will be equipped to make recommendations on priorities to other committees and working groups.


## Develop and maintain the capacity for standards-related policy development, analysis and dissemination

Canada's growing involvement in international trade activities has led to an ever-increasing need for thorough research and analysis in the field of standards policy. Sound knowledge of the standardization environment and effective analysis of that information are crucial to the development and implementation of effective standards policies.

In response to this growing need, the Standards Council is increasing its capacity to carry out policy research and bolstering its information services. Improving these capabilities will benefit not only the Standards Council itself, but also other standards stakeholders including regulators, industry and the general public.

The Standards Council has established a policy unit within its Intergovernmental Affairs and Trade Branch. It is also increasing collaboration and information-sharing, both internally and with the standards community, government policy makers, industry and Canadian regulators.

Standards information is being made more widely available to Canadians through a variety of new and expanded services provided by the Standards Council's Information and Research Service. These include the WTO/NAFTA Enquiry Point, the standards collection, databases accessible through the Standards Council's Web site, and new products and services such as specialized research reports.


## Ensure that standards

development processes support social policy objectives

The Standards Council's mandate, and a goal of the National Standards System, is to "support sustainable development, benefit the health, safety and welfare of workers and the public [and] assist and protect consumers...". These objectives must be an inherent part of the standards development process. Ensuring that they are supported is vital to establishing priorities for standardization efforts and resources.

CAN-P-2, Criteria and Procedures for the Preparation and Approval of National Standards of Canada, is an exceptionally influential document in this respect. CAN-P-2 describes the requirements a proposed national standard must meet in order to receive the status of a National Standard of Canada.

The Standards Council's Advisory Committee on Standards (ACS), Consumer and Public Interest Committee (CPIC) and Standards Development Organizations Advisory Committee (SDOAC) are working jointly to revise CAN-P-2 to include the consideration of social policy objectives.


## Move tow ard a global accreditation regime

The long-term objective of many people working in the conformity assessment field is to devise a system under which a product has to be tested or certified only once to be accepted anywhere in the world.

Some such systems are already in effect. For example, a number of Canadian certification bodies are members of the International Electrotechnical Commission's System for Conformity Testing and Certification of Electrical Equipment (the IECEE CB Scheme). Under this scheme, test certificates from one member certification body are accepted by other members. Canada is also leading the practical application of a similar system: the IECEx scheme for electrical products operating in explosive atmospheres.

In most other fields, the objective of one internationally recognized conformity assessment procedure is still some distance away. But a growing number of national, regional and international organizations are working to bring it about. The most common means of doing this is through recognition agreements worked out between accreditation bodies. These agreements, which may take the form of mutual recognition agreements (MRAs), multilateral agreements (MLAs) or memoranda of understanding (MOUs), call on the participants to recognize one another's accreditation procedures as equivalent to their own. By doing so, they reduce the time and costs associated with global trade and simplify access to foreign markets for exporters.

Canada is a major player in the development of these arrangements. The Standards Council of Canada is a founding signatory to agreements produced by the Pacific Accreditation Cooperation (PAC), the International Accreditation Forum (IAF), and the International Laboratory Accreditation Cooperation (ILAC). In the last few years, the Standards Council has participated in the work of the Asia-

Pacific Laboratory Accreditation Cooperation (APLAC), the Interamerican Accreditation Cooperation (IAAC), the North American Calibration Committee (NACC) and the National Cooperation for Laboratory Accreditation (NACLA). It has also applied to join agreements on environmental management systems developed by PAC and product certification developed by IAF.

Canada is also a leader in the establishment of the rules that underpin these agreements. We are an active participant in the International Organization for Standardization's committee on conformity assessment (ISO/CASCO), and convene the CASCO working group revising the Code of Good Practice for Conformity Assessment.


> Identify and make available to stakeholders the objectives and strategies underlying traderelated mutual recognition agreements (MRAs)

Mutual recognition agreements (MRAs) between governments or accreditation bodies help to eliminate barriers to trade, increase exporters' access to foreign markets, and reduce the costs and delays associated with duplicate testing of products. Under these agreements, signatories agree to recognize some or all aspects of each other's conformity assessment procedures.

These agreements have a potential impact not just on governments, accreditation bodies and industry, but also on consumers, regulators and non-government organizations. With so many stakeholders affected by MRAs, it is important for bodies such as the Department of Foreign Affairs and International Trade (DFAIT) and the Standards Council to clearly explain to Canadians why and how these agreements work.

To ensure that MRAs reflect Canadian trade interests and regulatory objectives, DFAIT and the Standards Council have developed criteria for undertaking new negotiations and enhancing existing agreements. The Standards Council's criteria focus on voluntary conformity assessment agreements, while DFAIT's focus on government-to-government activities. Both frameworks emphasize the "three Cs": consistency with existing regulatory and voluntary agreements, consultation with stakeholders and communication with stakeholders.

Both DFAIT and the Standards Council are using the Internet to share information with stakeholders. The Standards Council's Web site, for example, hosts a comprehensive list of over 23 transnational, regional or international standards-related agreements to which Canada is a signatory.


## Examine the use of alternative conformity assessment practices

Perhaps the most familiar and most visible face of conformity assessment is the marks and labels associated with third-party certification of electrical products. But certification isn't the only means by which suppliers demonstrate the conformity of their products or services to standards. In fact, most business-to-business transactions involve first- and second-party conformity assessment. Global markets, increased product integration and complexity and the speed of business have contributed to a growing demand for more innovative and adaptable approaches to conformity assessment. To achieve widespread application, these new approaches will have to be acceptable not only to industry, but also to regulators and consumers.

The Standards Council has provided a forum for regulators to meet and discuss conformity assessment
issues through the new regulatory subcommittee of its Advisory Committee on Conformity Assessment (ACCA).

We are also leading the international discussion on innovative conformity assessment approaches. The Standards Council is heading up the working group within the International Organization for Standardization's committee on conformity assessment (ISO/CASCO) which is revising ISO/IEC Guide 60, A Code of Good Practice for Conformity Assessment.

Industry Canada has examined one alternative approach to conformity assessment in its recent paper, Case Studies in Suppliers' Declaration of Conformity (SDoC). While SDoC may offer economic benefits by reducing delays in delivery to market, its acceptance will depend on the ability of its advocates to address important issues such as safety and consumer redress.


## Strengthen Canada's metrological infrastruc ture

Metrology, the science of measurement, is in many ways the foundation of standardization. Defined units of measurement were among the very first standards, and even today, internationally recognized measurement standards are the basis for the units of measurement referenced in virtually every normative standard.

The centre of metrology activity in Canada is the National Research Council of Canada's Institute for National Measurement Standards (INMS).

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The Standards Council of Canada and INMS's Calibration Laboratory Assessment Service (CLAS) operate an accreditation program for secondary calibration laboratories that provide traceability of measurements to the International System of Units (the SI). This program has accredited 19 laboratories, with another 17 currently undergoing assessment.

Both the Standards Council and INMS are working to ensure international recognition of Canadian metrology capabilities. INMS capabilities in the fields of acoustics, ultrasound and vibration, electricity and magnetism, photometry and radiometry, and length are now listed in a publicly available database under the mutual recognition agreement (MRA) developed by the Comité International des Poids et Mesures. These capabilities are recognized by all 50 signatories of the MRA (48 national metrology institutes and 2 international metrology organizations). Countries earn a place in the MRA database through a thorough review process involving an ongoing series of measurement comparisons at the highest metrological level.

Under the MRA, INMS is required to implement a recognized quality system. The institute is developing a quality system based on ISO/IEC 17025, General requirements for the competence of testing and calibration laboratories.


## Promote the use of the National Standards System (NSS)

The people and organizations of the National Standards System (NSS) make an important contribution to Canadians' social and economic well being. However, that contribution is not always widely recognized. That lack of recognition and awareness can impede the effectiveness of the NSS, prevent potential clients from
making use of its services, and affect the ability to attract new NSS participants.

Since 1999, key NSS members have developed coordinated national marketing and communications plans to raise awareness of the system and encourage stronger participation by stakeholders in standardization activities.

An important audience for that message is business, particularly small and medium sized enterprises (SMEs). The Standards Council has produced a number of business-oriented publications, including a family of brochures on accreditation programs for management systems registrars, laboratories and certification bodies. The NSS information booth has appeared at Industry Canada's series of SME Info-fairs and business-related tradeshows across the country, an important means of contact with current and future clients. Work is underway to develop additional presentations and business testimonials targeted at SMEs.

The Standards Council is also creating material to increase senior government officials' awareness of standards and their potential role in public policy. A key component in that effort is a PowerPoint presentation that includes examples of the successful use of standards as an alternative to regulation.

Consumers, youth and non-governmental organizations are another important target of the NSS communications effort. These groups need a greater awareness of the importance of standards to our quality of life.

For example, the Standards Council's web site now features Standards - A Guided Tour, an interactive presentation that describes the basics of standards and standardization. It's aimed at consumers and businesspeople with little or no background in standards.

To help young people become more aware of the existence and importance of standards, the Standards Council has developed a youth activity booklet for six to ten year olds (available on the Standards Council Web site), and is working on other material for students in elementary and high school. Over the next few months, more youth-friendly material will be added to the Web site, including standards-related games and quizzes. This material will also be promoted to teachers for use in the classroom.

Work is also progressing on the development of a web portal for the NSS (see item 15). The portal will provide an access point to standards information and will feature paths tailored to specific user groups such as NSS partners, business organizations and the general public.

Developing collaborative and strategic approaches to Canada's standardization activities is key to effectively responding to the challenges facing the NSS. To develop those approaches, the Standards Council has invited the entire NSS family to a two-day conference taking place in March near Québec City. Taking as its theme "Partners in progress", the conference is intended to foster a sense of commitment and pride in the NSS. Participants will share ideas and information on standards, conformity assessment, regulation and global trade.


## Connect emerging industries to standardization activity

Emerging industries, such as those in the information and communications technology, biotechnology and service sectors, are often unfamiliar with the opportunities offered by standards development and conformity assessment activity. Improving these industries' awareness of standardization will help to ensure them a voice in the emerging rules that will influence the marketplace in which they do business.

One emerging industry that is enjoying some success in this area is the "micropower" sector. Micropower refers to new electrical energy options provided by fuel cells, wind, photovoltaics (solar energy) and micro turbines. The deregulation of the energy industry and an increased demand for clean, renewable energy is encouraging the growth of the Canadian micropower industry.

Adoption and deployment of these new technologies is hindered by the lack of common standards and guidelines. To ensure its future success, the industry needs a nationally harmonized set of standards and guides for micropower generation and grid interconnection. Those standards are being developed through MicroPower Connect, an initiative involving the Electro-Federation of Canada (EFC), Natural Resources Canada, Industry Canada and a variety of experts and stakeholders including the Standards Council (for more information, visit www.micropower-connect.org).

The micropower initiative is a good example of how an emerging industry can be brought under the standards umbrella. The Standards Council is collecting information on the standards needs of other new industries and examining ways of developing contacts and working agreements with them.


## Examine/evaluate management system standards

The ISO 9000 series of quality management systems standards and the ISO 14000 series of environmental management standards are easily the best known and most widely applied standards in existence.

A number of studies and surveys have shown that these standards are generally effective in improving the performance and profitability of organizations that apply them. However, it has also been suggested that the standards are costly, time-consuming and difficult to apply, that they produce no real benefits, or that they are suitable for large organizations, but not for small or medium-sized operations.

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To obtain a better understanding of the impact of ISO 9000 and ISO 14000 in Canada, the Standards Council of Canada and Industry Canada commissioned the first large-scale, multi-sector study of Canadians' experience with the standards. Nearly 3,000 private-sector businesses shared their perceptions of why they chose to apply (or chose not to apply) the standards, what effect that had on their performance, and their overall impression of them.

The survey results showed a generally positive attitude towards ISO 9000 and ISO 14000. Organizations that had applied them had noticed a genuine improvement in their practices, performance and bottom line, and even nonregistered firms and non-users recognized them as beneficial.

The Standards Council published the results and its analysis of them in Management Systems Standards: The Story So Far - Canada's experience with ISO 9000, ISO 14000 and $Q S-9000$, a 68 -page report released in October 2000. The report sold well and was positively reviewed in a number of business publications.

The report is now available for free on the Standards Council's Web site. Further surveys are being considered to update the results of the original survey and to gauge the effects of the new "Year 2000" versions of the ISO 9000 standards.


## Develop a web portal for the NSS

Web portals - sites that allow users to sort through the vast variety of information available on the Internet in order to select just those topics that they're interested in - are among the most popular types of Web sites. It's not hard to see why: portals offer "one-stop shopping" for the information that a particular user wants or needs.

While there is an abundance of standards information on the Internet, there is currently no single Canadian
source for standards services, products or information. The Standards Council of Canada's current Web site has the potential to become an up-to-date standards portal for the National Standards System and the public.

The Web site has been in operation since 1995. In that time, it has gone through a variety of updates and redesigns. Last fall, the Standards Council surveyed visitors to the site to get their impressions of the design and to ask about their thoughts on its future development.

There was strong interest in the idea of an NSS portal. Most visitors said that they had also visited other standards sites, suggesting that a portal could save visitors time and effort. Not only would they be able to search a variety of sites simultaneously, the very existence of the portal would reinforce the notion that cooperation is a fundamental aspect of the NSS.

Since then, a four-step plan for the development of a portal has been developed:

- step 1: research, analysis and environmental scan;
- step 2: development of an overall vision and strategy;
- step 3: development of the portal structure; and
- step 4: programming and implementation.

The first three steps are expected to be completed by the end of March, 2002. The portal structure will be gradually implemented over the months that follow, with a completely new and improved site in place by September, 2002.


## Provide support for the Agreement on Internal Trade (AIT)

Trade between provinces and territories in Canada is worth approximately $\$ 350$ billion per year and generates employment for approximately two million Canadians. Over the years, a number of barriers to interprovincial
trade have developed. The Agreement on Internal Trade (AIT) is an inter-governmental agreement to reduce and eliminate barriers to the free movement of people, goods, services and investments within Canada. Focussing on several sectors, including investment, labor mobility, communications, transportation and consumer-related measures and standards, the AIT aims to establish an efficient, open and stable domestic market. The AIT was signed by the federal, provincial and territorial governments and came into effect on July 1st, 1995.

Just as they do on the international front, national and international standards and conformity assessment procedures have the potential to eliminate internal trade barriers. Because of that, the Standards Council of Canada has the potential to play an important role in helping to implement the AIT.

Recognizing this, the Standards Council's Intergovernmental Affairs and Trade (IGAT) Branch has begun to work more closely with the AIT Secretariat. For example, Secretariat representatives have made presentations to advisory committees such as the Provincial-Territorial Advisory Committee (PTAC) and the Advisory Committee on Trade (ACT). The Standards Council is also encouraging other groups and committees, such as the National Advisory Committee on Public Safety, to get involved with AIT-related standards and conformity assessment activities.

The Standards Council is promoting standards and conformity assessment as solutions to interprovincial trade and regulatory challenges. For example, the forthcoming ISO/IEC 17024, General Requirements for Bodies Operating Certification Systems of Persons, could improve the interprovincial acceptance of professional qualifications by providing a common basis for their recognition.


## Make standards and conformity assessment a full part of the public policy debate

Standards and conformity assessment offer considerable potential for ensuring the efficient and effective implementation of Canadian public policy objectives. Standards-based initiatives can be flexible and cost-effective. Thanks to the consensus process, standards offer solutions that are both feasible and acceptable to most interested parties. When based on international work, they simplify harmonization with other jurisdictions.

The challenge facing the Standards Council and the National Standards System is to build awareness of the potential for incorporating standards into public policy, not only among regulators and policy-makers, but among all stakeholders.

Certain government departments, such as Industry Canada, have already recognized this potential and are actively making use of standards systems. An increasing number of new regulatory initiatives reference voluntary standards as an alternative to regulation, or make use of the conformity assessment infrastructure (see the next item for an example). There are still many more opportunities for raising awareness, however.

To further this awareness, the Standards Council has established a task group that will develop a plan to identify opportunities for standards related measures in public policy and actively promote the use of standardization applications.

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## Utilize quality management systems and environmental management systems to achieve public policy objectives

One way in which standards solutions can be applied to public policy objectives (see item number 17) is through the use of management systems standards.

A management system enables an organization to identify its goals and objectives, describe the measures it takes to achieve those goals, evaluate the effectiveness of those measures, and review and improve its performance. The most well known application of management systems is to quality, as exemplified in the ISO 9000 series of standards. Another increasingly prominent example is the ISO 14000 series, which provides organizations with tools to manage the environmental impact of their activities.

By providing organizations with the tools to consistently manage their own performance, backed up by third-party verification in the form of the registration process, management systems can be a valuable element in, or alternative to, government regulation. Compliance levels can be maintained or increased without significantly increasing the cost to government.

One recent example of the application of management systems in public policy is the Canadian Medical Devices Conformity Assessment System (CMDCAS). This system was developed by Health Canada and the Standards Council to support new federal regulations for medical devices. Under these regulations, scheduled to take effect on January 1, 2003, certain types of medical devices will have to be manufactured under a registered quality management system (QMS).

Manufacturers of these devices will need to have a QMS that meets the requirements of ISO 13485 or ISO 13488, two international standards that provide specific requirements for the application of ISO 9000 to this industry. As part of CMDCAS, the Standards Council will qualify accredited QMS registration organizations to register manufacturers' quality management systems to the appropriate standards.


## Communicate the value of environmental management standards

The ISO 14000 series of environmental management standards offers organizations the tools to effectively monitor and significantly reduce the environmental impact of their operations. ISO 14000 is newer and less well known than the related ISO 9000 quality standards, but has the potential for similar worldwide growth and acceptance. For that to happen, though, potential users will have to be persuaded of the standards' value.

The Standards Council is sharing information on the standards' potential with standards stakeholders and the general public in a number of ways.

The experience of early adopters of the standards was an important element in a major national survey of Canadian companies' experience with management systems standards (see item 14, above). While only a comparative handful of firms were applying the standards at the time of the survey, those that were using them reported an improvement in environmental awareness and practice.

The Standards Council is active at the national and international level in the effort to find solutions to the issue of climate change, and is promoting standards and conformity assessment, including ISO 14000, as possible elements in those solutions.

The Canadian Standards Association's (CSA) standard for sustainable forestry management is closely related to ISO 14000. The Standards Council supports the implementation of the CSA standard by providing accreditation for sustainable forestry registrars.

The media, including the Internet, general interest publications and the trade press, provide a valuable avenue for communication with environmental stakeholders. Information on the Standards Council's activities has been submitted to a variety of Web sites, including Environment Canada's sites on sustainable development and environmental management. The Standards Council also contributes a bimonthly standards column to Hazardous Materials Management magazine dealing primarily with ISO 14000.


## Employ innovative funding mechanisms

Standardization can requires a significant commitment of time, energy and expense on the part of the people and organizations that participate in it.

Information technology has helped to ease the problem somewhat, by providing tools for working over the Internet rather than in person. But at the same time, it has widened the scope of standardization activities and created an expectation and a need for much faster results. The most influential standards work is now taking place at the international level, so that participants have to travel around the world, instead of just across the country. Governments, corporations and other traditional funding
sources are reducing the support they provide to standardization, making it more difficult to ensure that a variety of voices and positions are represented. As standards work expands into environmental, health and other social areas, the range of expertise represented on standards development committees needs to be increased.

There seems to be general agreement that current levels of funding for standards participation are inadequate to meet the challenges facing Canadians now and in the future.

The Standards Council's Advisory Committee on Standards (ACS) has created a Task Force on Funding Solutions (TFUNS) to examine the funding issue. The task force's plan is to describe the current situation as it affects Canadian standards development organizations (SDOs) and their contributors, as well as the Standards Council's international standards program and its contributors. This part of the project is now underway.

Once this stage is completed, the task force will then review how standardization is expected to evolve, evaluate the resources necessary for Canada to have an effective standards development system, and suggest means by which participants and their supporting institutions can be funded to achieve Canada's goals.


## Implement a volunteer program

Volunteers - the people who provide their time, expertise and energy to the development and implementation of standards, both at the national and international levels - are the lifeblood of the National Standards System.

Several thousand volunteers participate in the full range of standardization activities. But the volunteer profile is changing, and the need to identify, recruit and train new entrants is growing. Moreover, the roles of all

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participants must be examined, and their commitment reaffirmed to ensure that people with the appropriate expertise and decision-making capacity are involved.

The Standards Council has established a Volunteer Program to improve volunteer recruitment, training and recognition. The program is intended to strengthen and formalize existing processes, establish new procedures and introduce new training opportunities that focus on volunteer involvement.

New processes have been developed to manage aspiring volunteers, and an orientation package is in development. The program has also produced a recruitment brochure.

A number of training workshops intended to introduce new volunteers to the Standards Council, the International Electrotechnical Commission (IEC) and the International Organization for Standardization (ISO) have been developed, with more on the way. The first of these will have its public debut at the NSS conference in March, 2002.

The venerable Jean. P. Carrière Award, which for many years was the only means for the Standards Council to recognize the contributions of volunteers, has been supplemented by seven new awards. These recognize the variety of ways in which individuals and organizations may contribute to the goals of the NSS. This year's awards will be presented at a special banquet during the NSS conference in March. (For more on the awards, please see page 24.)


## Generate strategic sectoral participation

There is a growing tendency for standards issues and innovations to develop along industry sector lines. This tendency has been recognized by a number of standards organizations. ISO and IEC, for example, have both developed a series of sector-specific forums or advisory groups. These are intended to promote closer cooperation between standards bodies and industry, and provide a broader view of an industry's standards needs than can typically be obtained at the highly specific technical committee level.

The National Standards System (NSS) can benefit from a similar approach. Sectoral participation can provide the system with strategic advice from sector executives on the sector's near and longer term needs, increase industry support for the system, and provide a source of human and financial resources to support standards development.

A number of sector groups have already become closely involved with the NSS, including the Canadian Business Task Force on E-Commerce, the GeoConnections Secretariat and MicroPower Connect. Sectors that have been identified as priorities for new contacts include agriculture, information technology and forestry.

Research is underway to identify organizations that could take part in sector forums. It's expected that as many as six such forums could be in place by early 2003, with more to follow.


## Facilitate consumer input to the

## NAFTA

Consumers in Europe are able to take part in the development of European and international standards through the European Association for the Co-ordination of Consumer Representation in Standardization (ANEC).

No similar body exists in the Americas. At best, there are tentative links between some of the consumers active in standardization. Establishing a mechanism for coordination and communication between consumer standards representatives would help to ensure that international and regional standards address the needs and interests of consumers and civil society.

Setting up such a system would improve consumer representation in all participating countries and assist in the training of consumer representatives. This would be consistent with a recent ISO/IEC policy statement encouraging increased consumer participation in standardization work.

At the time that the Canadian Standards Strategy was developed, it appeared that the best avenue for achieving this goal would be some kind of formal structure for consumer input within the North American Free Trade Agreement (NAFTA). Since then, proposals to establish a Free Trade Area of the Americas (FTAA) have moved ahead. It's also been suggested that a less formal structure might be more effective. As a result, the Standards Council's focus has shifted towards considering more informal mechanisms for the entire FTAA region.

The Consumer and Public Interest Committee (CPIC), the Department of Foreign Affairs and International Trade (DFAIT) and Industry Canada's Office of Consumer Affairs are examining how to create a system to exchange information and develop more cooperative approaches. Possibilities include an Internet mailing list and a regular series of seminars. Such a system could bring together consumers involved in national and regional standards bodies, governments and nongovernmental organizations.

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## The stakeholders have their say

 The developers ofthe Canadian
standards Strategy
assess its progress so far

Democratic by its very nature, standardization brings together people from all walks of life with a stake in a particular issue to work out mutually acceptable solutions. Balancing interests and achieving consensus are at the heart of the process.

So it's no surprise that when the Standards Council of Canada sought to map out the future of standardization in Canada, it turned to standards stakeholders - the people and organizations most affected by standards and conformity assessment - for help. Responsibility for developing the Canadian Standards Strategy was assigned to a Stakeholders Advisory Council consisting of representatives of business, government, nongovernmental organizations and standardization bodies.

And it's also appropriate that those same stakeholders should have their say when it comes to evaluating the progress of the Strategy two years after its official launch. To get a sense of what they think of what has been achieved so far, we spoke to a selection of former members of the Stakeholders Advisory Council.

Their verdict: progress so far has been impressive, but more work remains to be done. And the Strategy's goals won't be achieved without the continued support of all standards stakeholders.

M ark Schnell is the Business Development Manager for Regina in Saskatchewan's Economic and Co-operative Development ministry. He's also a member of the Standards Council's governing body, and chair of its Provincial and Territorial Advisory Committee. He brought a provincial government perspective to the table.

André Forcier is Vice-President, Quebec Region of Intertek Testing Services NA Ltd., a testing and certification organization accredited by the Standards Council. He sees his role on the advisory council as representing certification organizations and their clients.

Rick Findlay is the director of Pollution Probe's Water Programme. He spoke for non-governmental organizations, particularly those in the environment sector.

Each sector represented on the advisory council had its own particular set of priorities. Mr Schnell, for example, saw establishing connections between emerging industries and standards systems as an important goal for the Strategy. Similarly, he felt that some attention needed to be paid to the needs of existing industries looking for new ways of serving their customers or expanding their markets. As a representative of a provincial government,
he also had an interest in ways in which standards systems could complement regulatory activity.

Mr Forcier, meanwhile, saw the Strategy as a means of increasing Canada's influence in international standards development and conformity assessment initiatives, particularly in the electrical sector. Like most people involved in conformity assessment, he wanted to encourage the development of systems that would ensure international acceptance of Canadian products and services.

For Mr Findlay, the Canadian Standards Strategy represented an opportunity to strengthen the role of standards in protecting the environment. That included making Canadian interests such as the environment an element in establishing priorities for standardization activity, and using standards to resolve challenging environmental issues such as climate change.

All three members say they're satisfied with the way that the final Strategy reflected their priorities. And by and large, they're pleased with the work that's been accomplished thus far.

Mr Schnell points to ways in which the Strategy has encouraged the use of standards-based approaches in areas such as the agricultural industry. Recent developments include a national standard and certification program for organic agriculture, and another standard, now in development, for labels identifying food that does or does not contain genetically-modified components.

Mr Forcier sees Canada's influence on the international standards scene growing, particularly in the International Electrotechnical Commission (IEC). While progress was already being made prior to the Strategy, he says, the document helped to focus and reinforce efforts already underway to advance Canadian interests in this important standards forum. He points in particular to the decision to invite IEC to hold its 2003 general meeting in Canada the first such meeting to be held here in 18 years.

Progress in the environmental field isn't as obvious, according to Mr Findlay. Apart from the release of a study on the Canadian impact of the ISO 14000 environmental management standards (see implementation plan item no. 14 , page 15 in this issue), there hasn't been a comprehensive review of progress in the use of standards in the environment area. Mr Findlay is hoping that is about to change. In March 2002, Pollution Probe and Standards Council staff will complete a report examining what the Strategy has achieved from an environmental perspective.

The three agree that whatever progress has been made to date, a considerable amount of work remains to be done to advance the goals of the Strategy.

Mr Schnell stresses the need for the National Standards System to continue its efforts to reach out to new and emerging industries. Both industry and regulators need to be made more aware of the potential solutions offered by standardization.

Mr Forcier sees Canada continuing to enhance its role on the international scene, and its adoption of international standards.

Mr Findlay expects the forthcoming report on the Strategy to provide recommendations for continued activity in the environmental sector.

# And the award goes to... 

## The Standards Council of Canada salutes its best and brightest

$\square$anada's National Standards System works so well because of the time, energy and expertise invested by several thousand Canadians and the organizations they represent.

For most, the work and its results are a reward in themselves. But when so many people give so much to a cause, it's only right to publicly recognize their efforts.

Since 1979, the Standards Council of Canada has presented its Jean P. Carrière Award to an individual who has made an outstanding contribution to standardization. A single award that's presented annually doesn't necessarily reflect the volume and scope of the contributions made to the National Standards System, however. So this year, the Standards Council has instituted seven new awards recognizing the variety of ways in which volunteers, organizations and Standards Council employees support standardization in Canada.

This year's Standards Council of Canada Awards will be presented during a special awards ceremony on March 26, as part of the National Standards System Conference. Here's the line-up of award winners:

## The J ean P. Carrière Aw ard

The Jean P. Carrière Award recognizes distinguished service to Canadian standardization. It's named for Brigadier-General Jean P. Carrière, the president of the Standards Council from 1971 to 1977. Most of the essential plans and policies for the National Standards System were conceived and formulated during his term in office.

This year's Jean P. Carrière Award will be presented to M argaret Soper. Ms Soper has been a volunteer with the Standards Council of Canada since 1988 and has served in a number of leadership roles. Currently, she is a member of the Consumer and Public Interest Committee and the Canadian Advisory Committee to the International Organization for Standardization's consumer policy committee (CAC/COPOLCO).

## Roy A. Phillips Aw ard

This new award is presented in recognition of Roy A. Phillips, a respected engineer, recipient of the Order of Canada and President of Roy Phillips Advisory Services Inc., to those who have made an outstanding contribution to international standardization.

Among his many contributions, Mr Phillips was the first Canadian to serve as president of the International Organization for Standardization (ISO). He has played a significant role in the effort to harmonize the procedures of ISO and the International Electrotechnical Commission (IEC), and his ongoing work with the Standards Council, international standardization organizations and the private sector has helped redefine the direction of international trade and policy. Outside the standards arena, he has been president and executive director of the Canadian Manufacturers' Association (now Canadian Manufacturers and Exporters).

The inaugural Roy A. Phillips award will be presented to Reginald Shaughnessy. Mr Shaughnessy has been a volunteer in steel, health, safety and quality committees for 42 years. He is currently chair of the Canadian Standards Association's steering committee on business management, and has served as international chair of the technical committee that developed the ISO 9000 series of quality management standards.

## Corporate Commitment Aw ard

This award, presented for the first time this year, goes to the corporation, organization, or consumer group that has demonstrated outstanding leadership by assisting the Standards Council in national or international standardization activities.

This year, the award will be presented to the D epartment of N ational D efence's Directorate of Quality Assurance (D Q A). DQA supports the National Standards System by promoting the use of ISO 9000 and ISO 14000 based management systems for internal and external suppliers, and by providing guidance in quality and environmental management to Canadian and foreign governments. DQA provides a number of members of the Standard Council's advisory and technical committees and task groups, as well as volunteers who participate in conformity assessment audit activities.

## Standards Council of Canada Leadership Aw ard

This new award recognizes notable contributions made by the chair or convenor of an advisory or technical committee.

John Dunn, this year's recipient, has worked for nearly 30 years to advance the development of rubber standards, both internationally and in North America. He served as chair of the Canadian advisory committee to ISO's technical committee on rubber and rubber products (CAC/ISO TC 45) for nearly 25 years, and continues to participate in its activities. His leadership and expertise in rubber technology are acknowledged throughout the world.

## Standards Council of Canada Distinguished Service Aw ard

This new award recognizes notable contributions made by the secretary of an advisory or technical committee.

This year's award will be presented to Ahmad H usseini. Mr Husseini has played a pivotal role in Canada's involvement in the development of international environmental management standards. He was instrumental in the establishment of the technical committee responsible for the ISO 14000 standards (ISO TC 207). In 1998, he became the international secretary for TC 207 and still holds that position today.

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## Standards Council of Canada Aw ard of Excellence

This new award recognizes notable contributions made by a committee member.

This year's recipient is Leonard Adrian. Mr Adrian has been involved with the Standards Council since 1972. He has been a member of the Advisory Council on Certification and Testing, the Certification Accreditation Sub-committee, and the Task Group on Certification. He was instrumental in the establishment of the Standards Council's program for the accreditation of certification bodies, and continues to be an active advisor to staff. On the technical side, he has been involved with a number of standards development committees and organizations concerned with fire safety.

## Standards Council of Canada Dedicated Service Aw ard

This new award recognizes notable contributions made by a Standards Council employee in support of volunteers and their committee work.

Jane Legault, this year's recipient, has worked for the Standards Council since 1991. She has weathered many changes in staffing and leadership, while providing admin-

## Standards Council staffers reach quarter-c entury mark

Cpeaking of recognition, two members of the Standards Council of Canada's staff recently reached milestones worthy of recognition. Guy Ethier and Pierre Constantineau have both been with the Standards Council for 25 years. Mr Ethier's name should be familiar to CONSENSUS's more eagle-eyed readers; as our Graphics and Design Coordinator, responsible for the design and layout of most of our publications, his name has been appearing in the magazine's masthead since the October 1976 issue. Mr Constantineau's role has been less visible, but as Printing Supervisor for an organization that depends on paperwork, his job is no less important.

[^0]istrative and support services to volunteers in the certification program. Through it all, she has displayed good humor and a strong organizational ability which have made her indispensable to the stability and success of the conformity assessment group.

## Standards Council of Canada Special Achievement Aw ard

This award recognizes notable contributions made by a committee that have benefited Canada's international or national standards development and or conformity assessment activities. This could include the development or completion of a major new national or international standard.

There were no nominees for the Special Achievement Award this year.

For more information on the Standards Council of Canada's volunteer program and awards, please visit the Standards Council's Web site at http://www.scc.ca.

## Do you fit in?



# You can't afford not to. 

W ant to become registered to ISO 9001 (Quality M anagement Systems) or
ISO 14001 (Environmental M anagement Systems)
by a Standards Council of Canada accredited registrar?
or
W ant to become a registration body for ISO 9001 (Quality M anagement Systems) or ISO 14001 (Environmental M anagement Systems)?

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\begin{gathered}
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\text { or call us at } 613.238 .3222
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[^0]:    Congratulations, Guy and Pierre!

