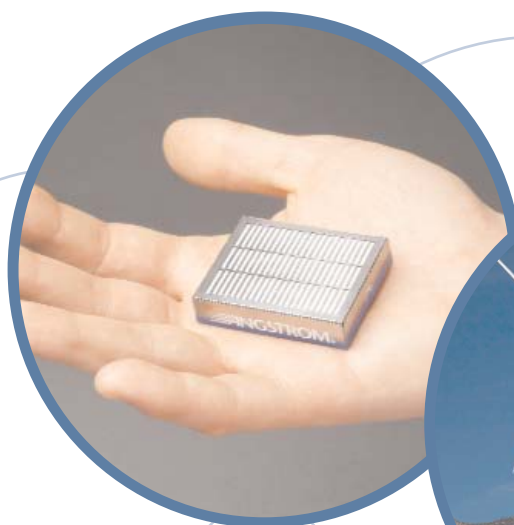




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Sustainable Development Strategy 2006–09



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Contents

Minister's Message	1
Executive Summary	3
1. Introduction	5
2. The Sustainability Context for Canadian Industry	9
2.1 Sustainability Challenges and Canada's Performance	9
2.2 Industry Canada's Sustainable Development Forward Agenda: Selling the Business Value of Sustainability	11
3. Strategy 2006–09	15
3.1 Sustainability-Driven Technologies and Commercialization	18
3.2 Sustainability Tools, Practices, Research and Awareness	29
3.3 Sustainability Practices and Operations within Industry Canada	43
4. Industry Canada's Sustainable Development Management System	51
Appendix A: Departmental Profile	53
Appendix B: Foundation Studies and Stakeholder Consultations	55

Minister's Message



Sustainable development is increasingly seen as an important determinant of the quality of life of Canadians. It supports the development of more productive, innovative and globally competitive businesses.

Canada's new government is working toward achieving real results for our environment. We want to help Canadians where it matters most — in their homes and in their communities — because a healthy environment means healthy Canadians. The government will focus on a “made-in-Canada” solution that makes the necessary investments in Canadian technology that will have a real impact in Canadian communities.

Canadian firms are helping to make this happen because market forces are demonstrating the value of sustainability. As firms are subjected to the rigours of the rapidly changing global marketplace and consumer demands for products and services that are more sustainable, they are turning to sustainability-driven practices and technologies to enhance their performance. Leading-edge Canadian companies are integrating sustainable development considerations into their corporate strategies and realizing the bottom-line benefits of implementing process-improvement tools and practices as well as transformative technologies. These inputs are driving economic growth, while improving environmental and social performance.

Industry Canada's *Sustainable Development Strategy 2006–09* seeks to broaden and deepen the practical implementation of the business case for sustainable development in Canadian industry. This new strategy is characterized by the theme “selling the sustainability value proposition,” which supports the Department's legislative mandate to strengthen the national economy and promote sustainable development.

The Department will deliver a number of sustainable development initiatives over the next three years to achieve the following strategic outcomes:

- increased development, commercialization, adoption and diffusion of environmental, energy and bio-based technologies
- increased use by firms, industries and institutions of sustainability and corporate social responsibility practices, and increased consumer awareness of sustainability issues
- increased implementation within Industry Canada of sustainable operations and practices, and integration of sustainable development principles into planning, performance measurement and evaluation frameworks

As Minister of Industry, I will continue to build on my Department's sustainable development achievements by raising awareness and promoting the business value proposition of sustainability to Industry Canada's partners and stakeholders. The Department will also address its internal sustainability performance by further integrating sustainability into its policy, planning and program decision-making processes, and by increasingly greening its practices and operations. In this way, Industry Canada will continue to do its part to contribute to a more sustainable economic, environmental and social future for Canadians.

A handwritten signature in black ink, reading "Maxime Bernier". The signature is fluid and cursive, with the first name "Maxime" written in a larger, more prominent script than the last name "Bernier".

Maxime Bernier
Minister of Industry

Executive Summary

Guiding Vision

In support of a competitive economy, Industry Canada is positioned as a leader in supporting sustainable development technologies and practices for businesses and consumers.

Industry Canada's *Sustainable Development Strategy 2006–09* (SDS IV) seeks to build on the achievements of its first three strategies and further enable Canadian industry and consumers to improve their sustainability awareness and performance levels. The theme of SDS IV is “selling the sustainability value proposition.”

SDS IV is structured around three strategic outcomes that represent what the Department aims to have achieved by December 2009, when its action plan items will have been fully implemented:

- **Sustainability-driven technologies:** Increased development, commercialization, adoption and diffusion of environmental, energy and bio-based technologies

This strategic outcome consists of a core group of action items designed to promote the development, commercialization and diffusion of hydrogen fuel cell, energy and bio-based technologies.

- **Sustainability tools, practices, research and awareness:** Increased use by firms, industries and institutions of sustainability and corporate social responsibility practices, and increased consumer awareness of sustainability issues

This strategic outcome consists of a core group of action items designed to increase the take-up of sustainability-enhancing business-process-improvement tools and practices, and the response of firms to

heightened consumer demand for products and services that are more sustainable.

- **Sustainability practices and operations within Industry Canada:** Increased implementation of sustainable operations and practices, and integration of sustainable development principles into departmental planning, performance measurement and evaluation frameworks

This strategic outcome consists of a core group of action items designed to broaden and deepen the Department's integration of sustainability into policy decision making, and improve its sustainable operations performance.

Industry Canada's sustainable development management system includes a results-chain performance measurement and reporting framework. It helps support the Strategy's action plan items and provides a guide for the economic, efficient and effective implementation by participating branches throughout the Department, thereby enabling it to achieve its desired strategic outcomes by December 2009.

1. Introduction

Sustainable Development Strategy 2006–09 (SDS IV) demonstrates how Industry Canada is renewing and revitalizing its commitment to address vital sustainability issues that affect all Canadians. This fourth strategy builds on past accomplishments while addressing emerging sustainability challenges and opportunities.

“Sustainable development is about meeting the needs of the present without compromising the ability of future generations to meet their own needs.”

— *Our Common Future*, The World Commission on Environment and Development, 1987

Industry Canada’s legislative responsibility for sustainable development is defined in the *Department of Industry Act*, 1995, which mandates the Minister of Industry to “strengthen the national economy and promote sustainable development.” Sustainable development is an approach to growth that considers the impacts of policies, programs and operations on economic prosperity, environmental quality and social well-being. Further integration of sustainable development principles into departmental policies, programs and operations will foster improved efficiency, decreased costs, improved environmental quality, enhanced competitiveness of Canadian industry, and increased awareness and uptake by Canadian consumers.

Industry Canada’s first sustainable development strategy, SDS I (1997–2000), had a “learning and discovery” theme. It was aimed at institutionalizing the concept of sustainable development by establishing broadly based deliverables and management involvement. The Department’s second sustainable development strategy, SDS II (2000–2003), was characterized by a “leadership and partnership” theme. It was formulated on the basis of lessons learned from SDS I, specifically in terms of building a sustainable development management system within the Department. Industry Canada’s third sustainable development strategy, SDS III (2003–2006), supported a vision of Canada as a leader in the development, commercialization and adoption of innovative sustainable development tools, practices and technologies throughout the economy. Its “innovation and results” theme was complemented by the innovation challenges presented in *Achieving Excellence: Canada’s Innovation Strategy* and by the performance measurement challenges established by the Commissioner of the Environment and Sustainable Development (CESD).

Industry Canada has made significant progress over the course of its three sustainable development strategies. Now, it is well positioned to promote to Canadian industry the practical application of the business case for sustainable development. These efforts have focused primarily on supporting fundamental research, technology development and commercialization, and the dissemination of process-improvement tools and practices throughout the economy. Industry Canada has also achieved significant results in incorporating sustainable development principles into its planning and evaluation frameworks and greening its operations (see Table 1 — “SDS III, 2003–06, Strategic Outcomes and Selected Accomplishments”).

The Department has consistently been ranked in the top tier of federal departments in recent performance-related audits undertaken by the CESD.

SDS IV was prepared on the basis of several foundation studies and external and internal stakeholder consultations (see Appendix B). It also considers federal guidance on preparing departmental sustainable development strategies and on greening government operations, recent reports of the CESD, and a number of departmental strategic planning documents and major external studies. Overall, SDS IV presents the Department’s renewed path forward in terms of advancing sustainable development with its partners and stakeholders.

Table 1. SDS III, 2003–06, Strategic Outcomes and Selected Accomplishments

<p>Innovation Toward Sustainable Development</p> <ul style="list-style-type: none"> Increased commercialization and adoption of eco-efficient tools and technologies 	<p>Eco-Efficiency / Sustainable Manufacturing Industry Canada has delivered online eco-efficiency assessment tools and partnered with a number of stakeholders to offer workshops to encourage their take-up by Canadian industry.</p> <p>Hydrogen Economy Industry Canada has contracted a number of demonstration projects for hydrogen and fuel cell technologies under Technology Partnerships Canada’s Hydrogen Early Adopters program.</p> <p>Renewable Energy Industry Canada has undertaken research studies and promoted investment attraction / market development for solar technology and wind energy.</p> <p>Technology Roadmaps Industry Canada has completed a number of technology roadmaps, including those for carbon dioxide capture and geological storage, biofuels, and clean coal (see strategis.ic.gc.ca/trm).</p>
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<p>Corporate and Community Sustainability</p> <ul style="list-style-type: none"> Increased use by industry, institutions and communities of corporate responsibility and sustainability practices 	<p>Corporate Social Responsibility Industry Canada has partnered with stakeholders to improve corporate social responsibility (CSR) management capacity among Canadian firms by developing a corporate responsibility assessment tool, sustainability metrics for investors, and a guide on CSR management for business.</p> <p>Corporate Sustainability Reporting Industry Canada has contributed to increasing the quality and quantity of corporate sustainability reporting by conducting best-practice studies, delivering workshops, and developing an online reporting tool kit. The number of Canadian public companies reporting increased from 79 in 2002 to 114 in 2005.</p> <p>Computers for Schools Industry Canada has partnered with a wide variety of stakeholders to refurbish and distribute thousands of computers to schools, libraries and non-profit learning organizations, reducing e-waste that would have been directed to landfill.</p>
<p>Sustainable Development Capacity Building within Industry Canada</p> <ul style="list-style-type: none"> Enhanced capacity of Industry Canada's sustainable development management system 	<p>Mainstreaming Sustainable Development within Industry Canada Planning and Reporting Frameworks Industry Canada has integrated sustainable development into its Program Activity Architecture at the strategic outcome level and developed a Results-Based Accountability Framework for SDS III.</p> <p>Greening Operations Industry Canada has strengthened its “reduce, re-use and recycle” programs in its printing, photocopying and facilities management.</p> <p>Sustainable Development Training and Awareness Industry Canada annually offered two sustainable development training courses for employees, focusing on the theory and practical application of the business case for sustainable development in Canadian industry.</p>

2. The Sustainability Context for Canadian Industry

2.1 Sustainability Challenges and Canada's Performance

Although Canada continues to be highly ranked among nations of the world with respect to quality of life and standard of living,¹ there are a number of policy challenges on the horizon. On the economic front, Canada's competitiveness challenges are

highlighted by a persistent productivity gap in relation to the U.S., business under-investment and inadequate commercialization performance. These challenges are magnified by the prospect of intensified global competition from emerging economies (for markets, business investment and highly skilled workers), offshoring and tightening global value chains. Furthermore, Canada's aging population and slowing labour force growth are resulting in acute skills shortages in key sectors of the economy.

With respect to the environmental dimension of sustainable development, the World Economic Forum's *2005 Environmental Sustainability Index* ranked Canada sixth, down from fourth in 2002.² This revealed the urgent need for Canada to focus on conservation and protection challenges (i.e., air, water and marine pollution, human health, and biodiversity). Climate change, its related impacts and the status of federal environmental policies are important considerations in this discussion. Energy security has also emerged as a key factor in sustainability progress and in investment

Canadian Consumer Attitudes Toward Corporate Social Responsibility

In a 2005 GlobeScan / Hewlett-Packard (Canada) Co. survey on corporate social responsibility (CSR), it was revealed that Canadians are more inclined to do business with companies that demonstrate CSR practices. Ninety-two percent of those surveyed said that they are more likely to purchase products and services from socially and environmentally responsible companies. This attitude also extends to employment, with 91 percent preferring to work for companies that are socially and environmentally responsible. In addition, 93 percent of respondents felt that CSR should be as important to companies as increasing profits and shareholder value.

— “Expectations for Corporate Social Responsibility Rising with Clear Consequences for Not Measuring Up,”
Canada Newswire, April 2005

1 United Nations, *Human Development Report 2006*, New York: United Nations, 2006. (Canada is currently ranked sixth.)

2 World Economic Forum, *2005 Environmental Sustainability Index*, New Haven, Connecticut: Yale Center for Environmental Law and Policy, 2006.

decisions on the appropriate mix of clean and renewable alternatives, energy efficiency, and conservation measures.

In terms of the social dimension of sustainable development, there is a growing awareness of the business case for sustainable development by the Canadian private sector. This is resulting in a critical mass of progressive firms that implement corporate sustainability and social responsibility practices into core strategies and operations, with increased positive bottom-line performance. In its third national survey of corporate sustainability reporting practices in Canada, Stratos Inc. found that 114 companies in 13 sectors published reports on their environmental, social and economic performance in 2005. This represented an increase from 100 companies

in 2003, 79 companies in 2002, and 57 companies in 2001.³ The increase in Canadian public corporations reporting on sustainable development suggests that they are responding to the concerns of a variety of stakeholders by addressing broader environmental and social issues. Specifically, consumers, investors and employees are increasingly demanding customized, high-quality goods and services that generate shareholder value but minimize adverse social and environmental impacts in their communities and beyond.

The growth in the number of ISO 14001 certifications achieved by Canadian industry is another indicator of the progress in integrating sustainability practices into operations. The total number of ISO 14001 certifications in December 2004 was 90 569

Table 2. ISO 14001 Certifications as of December 2004⁴

Rank	Country	Number of Certifications
1	Japan	19 584
2	China	8 862
3	Spain	6 473
4	United Kingdom	6 253
5	Italy	4 785
6	United States	4 759
7	Germany	4 320
8	Sweden	3 478
9	France	2 955
10	Korea	2 609
11	Australia	1 898
12	Brazil	1 800
13	Canada	1 492

3 Stratos Inc., *Gaining Momentum: Corporate Sustainability Reporting in Canada*, 2005, Ottawa: Stratos Inc., 2005.

4 Source: International Organization for Standardization, *ISO 14001 Registered Company Directory North America Report*, 2004.

in 127 countries/economies. The 2004 ISO 14001 report revealed that Canada ranked 13th out of the top 20 countries in terms of number of firms achieving ISO 14001 certification (see Table 2 — “ISO 14001 Certifications as of December 2004”). Although Canada still ranked behind many European countries, as well as Brazil, Australia and Korea, it has achieved steady growth in the number of Canadian companies achieving ISO 14001 certification. By the end of 2004, 1492 Canadian firms had received ISO 14001 certification, compared with only 276 in 1999.

2.2 Industry

Canada’s Sustainable Development Forward Agenda: Selling the Business Value of Sustainability

Global economic trends foreshadow more intense global competition. Therefore, Canada will need to significantly strengthen its business sector productivity in order to maintain a rising standard of living and create high-quality jobs. Higher productivity growth underpins this prosperity challenge, which will be driven by a highly skilled labour force that develops new technologies and uses existing technologies in innovative ways. These conditions will produce technology-savvy firms and attract financial and physical capital investment, generating robust economic growth.

Increasing the productivity performance of firms and contributing to environmental and social improvements can be achieved by properly framing the business value of

sustainability. A sustainability focus can act as a catalyst for transformational change, helping to address economic growth and environmental protection challenges. Rather than selling sustainability in ethical, environmental or social stewardship terms, business leaders should be encouraged to see it as an investment opportunity. Results of Industry Canada’s external stakeholder consultations on the Strategy support this view. Many stakeholders recommend that the Department take a lead role in articulating and championing the business case for sustainable development as a long-term investment opportunity. Sustainable development can be directly addressed by investing in research and development (R&D); technology development and commercialization; and process-improvement tools, practices and enabling technologies.

Seven Business Case Benefits of Sustainable Development

- 1) Reduced recruiting costs
- 2) Reduced attrition costs
- 3) Increased productivity
- 4) Reduced expenses in manufacturing
- 5) Reduced water, energy and consumables expenses at commercial sites
- 6) Increased revenue and market share
- 7) Reduced risk / easier financing

— *The Sustainability Advantage: Seven Business Case Benefits of a Triple-Bottom Line*, Bob Willard, New Society Publishers, 2002

The business case for supporting the use of leading-edge sustainability solutions as investments and opportunities, rather than costs and risks, is now being quantified and

speaks to the bottom-line language that business leaders understand: revenue improvement, expense reduction and increased profitability.⁵ Adopting these solutions requires a modification of corporate culture and brand repositioning based on technology breakthroughs in new products, processes, services and markets.

Industry Canada is helping to promote the benefits of sustainability to Canadian industry and is supporting the development of a critical mass of business sustainability champions. The Department plays an important role in supporting the generation, commercialization and diffusion of knowledge and technologies throughout the Canadian economy. Specifically, it encourages “beyond compliance” sustainability leadership, which fully integrates sustainability considerations into corporate business strategy. Industry Canada intends to reinvigorate its efforts to promote the broad dissemination of process-improvement tools and practices such as eco-efficiency, environmental management systems and corporate social responsibility, as well as transformative environmental, energy and bio-based technologies.

Long-term policy and regulatory predictability and coherence will also be needed to encourage more effective business decision making and sustainability-driven R&D, technologies and investment. The Department’s external issues scan found that addressing imperfect information in the marketplace and using a balanced mix of policy tools remain key concerns for business, particularly with respect to the environment. Industry Canada will explore potential options in this area by examining the viability of market-based solutions that would reduce the cost of meeting environmental objectives and encourage “beyond compliance” leadership. This research and policy advocacy, combined

with efforts to more actively promote the business value proposition and integrate sustainability considerations into business strategies, will support improved firm-level triple-bottom-line (economic, environmental and social) performance.

Advancing Sustainable Development Across the Government of Canada: Federal Sustainable Development Goals

Industry Canada can better achieve its sustainable development outcomes by working in partnership with other federal departments on sustainability issues. The Department will contribute, where appropriate, to the following federal sustainable development goals through the implementation of this strategy.

- **Environmental Quality Goals**

- clean and secure water for people and marine and freshwater ecosystems
- clean air for people to breathe and for ecosystems to function well
- reduced greenhouse gas (GHG) emissions

- **Sustainable Development Management Goals**

- a prosperous economy for communities, a healthy environment for current and future generations, and a vibrant and equitable society
- sustainable development and use of natural resources
- strengthened federal governance and decision making to support sustainable development

These federal sustainable development goals also complement and incorporate the priorities outlined in *Greening Government*

⁵ Willard, Bob, *The Next Sustainability Wave: Building Boardroom Buy-In*, Gabriola Island, British Columbia: New Society Publishers, 2005, p. 134.

Operations: Guidance for Organizations Developing Sustainable Development Strategies (2007–2009). This guidance document by Public Works and Government Services Canada outlines government-wide targets and performance measures for three priorities: energy for use in buildings, vehicle fleets and green procurement. The document also profiles additional areas of focus, including waste management, facilities and land-use management, regulatory compliance and green stewardship.

Ten of Industry Canada's action items, as noted in the text, are expected to support federal sustainable development goals (see Section 3).

3. Strategy 2006–09

The theme of Industry Canada's SDS IV is "selling the sustainability value proposition." This strategy seeks to further support efforts by the Department's partners and stakeholders to implement productivity-enhancing sustainability technologies and processes that can improve their economic, environmental and social performance.

Industry Canada's SDS IV is guided by the following vision, strategic outcomes, principles and action plan items.

Vision

In support of a competitive economy, Industry Canada is positioned as a leader in supporting sustainable development technologies and practices for businesses and consumers.

Strategic Outcomes

This strategy commits Industry Canada to pursue sustainability initiatives that will contribute to its three strategic outcomes:

- 1) **Sustainability-driven technologies and commercialization:** Increased development, commercialization, adoption and diffusion of environmental, energy and bio-based technologies
- 2) **Sustainability tools, practices, research and awareness:** Increased use by firms, industries and institutions of sustainability and corporate social responsibility practices, and increased consumer awareness of sustainability issues
- 3) **Sustainability practices and operations within Industry Canada:** Increased

implementation of sustainable operations and practices, and integration of sustainable development principles into departmental planning, performance measurement and evaluation frameworks

Principles

Industry Canada's guiding principles for achieving its SDS IV vision, strategic outcomes and action plan items are:

- **To provide leadership and partnership in implementing sustainable development:** Consistent with the *Department of Industry Act*, 1995, the Department will "strengthen the national economy and promote sustainable development." Industry Canada will provide leadership in promoting the development and commercialization of new sustainability tools, practices and technologies within Canadian industry. This will be achieved by consulting stakeholders and by identifying partnership opportunities with other federal departments, the private sector, industry associations and academia.
- **To use a mix of policy tools:** Industry Canada will consider using, and advocating for, a variety of policy

instruments to address market gaps in order to meet its environmental sustainability and long-term competitiveness objectives (e.g., information, tax and market-based instruments/incentives, voluntary approaches/covenants, and regulation).

- **To manage for sustainable development outcomes:** Industry Canada will manage the implementation of its SDS IV through a next-generation performance measurement and reporting framework, which will focus on achieving outcomes and reporting on them publicly.

Linkages to Industry Canada's Program Activity Architecture

The Department's sustainable development outcomes are linked to its strategic outcomes in its Program Activity Architecture. These are summarized in the Department's profile:

- **A fair, efficient and competitive marketplace:** Continuing to modernize marketplace frameworks in support of a highly competitive and innovative economy for the benefit of all Canadians
- **An innovative economy:** Ensuring the strategic allocation of resources to investments in enabling technologies and supporting the generation and commercialization of knowledge
- **Competitive industry and sustainable communities:** Implementing strategic frameworks for priority industrial sectors that have an important impact on the Canadian economy, and working with Canadians to position them to take advantage of economic opportunities, support business development, provide long-term growth and promote sustainable development

First, the Department is committed to establishing a **fair, efficient and**

competitive marketplace, which helps to establish a robust business environment that encourages R&D investment and entrepreneurship. SDS IV's strategic outcome of "sustainability tools, practices, research and awareness" supports the implementation of business sustainability strategies designed to reduce risk, manage liabilities, improve productivity performance, and respond to consumer demands for sustainable products and services.

Second, the Department is committed to promoting an **innovative economy**, which drives science and technology progress and ensures that Canadian discoveries contribute to the quality of life of Canadians. SDS IV's strategic outcome of "sustainability-driven technologies and commercialization" supports investment in the generation and commercialization of knowledge, in support of the development of environmental and enabling technologies.

Finally, the Department is committed to supporting the development of growing **competitive industry and sustainable communities**, which promotes business investment and development, long-term growth and sustainable development. SDS IV's strategic outcome of "sustainability tools, practices, research and awareness" supports the adoption of sustainability-enhancing business-process-improvement tools and practices, and responds to heightened consumer demands for products and services that are more sustainable.

The third strategic outcome of SDS IV, "implementing sustainability practices and operations within Industry Canada," contributes to the Department's corporate management function by promoting sustainability management systems and processes, greening operations programming, and training and capacity-building initiatives.

Table 3. Industry Canada's Sustainable Development Strategy 2006–09

Vision: In support of a competitive economy, Industry Canada is positioned as a leader in supporting sustainable development technologies and practices for businesses and consumers.

↑		↑		↑	
Strategic Outcome: Sustainability-Driven Technologies and Commercialization Increased development, commercialization, adoption and diffusion of environmental, energy and bio-based technologies		Strategic Outcome: Sustainability Tools, Practices, Research and Awareness Increased use by firms, industries and institutions of sustainability and corporate social responsibility practices, and increased consumer awareness of sustainability issues		Strategic Outcome: Sustainability Practices and Operations within Industry Canada Increased implementation of sustainable operations and practices, and integration of sustainable development principles into departmental planning, performance measurement and evaluation frameworks	
Action Items <ul style="list-style-type: none"> Hydrogen Early Adopters program Program for Strategic Industrial Projects reporting Industrial development in Canada's renewable energy sector Hydrogen and fuel cell technology awareness and education Biorefineries Green procurement: energy and environmental technologies Council of Canadian Academies Technology Partnerships Canada sustainable benefits reporting Vehicle fuel efficiency 	Performance Indicators <ul style="list-style-type: none"> Number of technologies commercialized/diffused Revenues, employment and technology patents/repayment Number of new manufacturing facilities in renewable energy sector Level of awareness and market readiness of renewable technologies Number of chemical platforms developed and commercially viable products that reach the market References to completed scientific assessments in policy discussions and other documents 	Action Items <ul style="list-style-type: none"> Broadening the use of CSR management tools and applications Promoting CSR and sustainability awareness Contributions Program for Non-Profit Consumer and Voluntary Organizations Consumer and sustainability policy research Sustainable manufacturing Sustainable buildings Environmental performance of small and medium-sized enterprises (SMEs) Comparative research on renewable energy policy instruments Sustainable development in post-secondary education Canadian Environmental Solutions database Computers for Schools 	Performance Indicators <ul style="list-style-type: none"> Number of firms that implemented ISO 14001, CSR tools/environmental management systems, eco-efficiency, and sustainable/lean manufacturing, and corporate sustainability reporting Number of CSR-related workshops/seminars provided, tools/guides developed Level of knowledge about consumer demand for sustainable products and services Number of matches from the Canadian Company Capabilities database for new categories Percentage increase in green building design/construction practices Number of research projects on sustainable consumption Number of computers refurbished for schools/libraries 	Action Items <ul style="list-style-type: none"> Greening operations Renewed Strategic Environmental Assessment (SEA) Sustainable development senior management champions Sustainable development awareness, training and employee challenge Telework and sustainable development Mid-term evaluation of SDS IV 	Performance Indicators <ul style="list-style-type: none"> Energy, water, material, waste and effluent intensity Level of public stakeholder interest in Industry Canada's publicly accessible SEA website Number of sustainable development-related workshops, seminars, speakers and training courses offered and participant satisfaction Level of sustainable development integration into Industry Canada policies/strategies and senior management awareness Level of sustainable development awareness Number of Industry Canada employees teleworking

Action Plan Items

Industry Canada's three SDS IV strategic outcomes will be advanced by delivering 26 action plan items. These contribute to specific departmental priority areas and represent a range of new initiatives and ongoing activities. The action items also have corresponding performance indicators, which have been developed in the context of a further refined results-chain performance measurement and reporting framework.

The framework for SDS IV is presented in Table 3. The action plan items for each of the three strategic outcomes are described in sections 3.1, 3.2 and 3.3.

3.1 Sustainability-Driven Technologies and Commercialization

Sustainable development strategic outcome: Increased development, commercialization, adoption and diffusion of environmental, energy and bio-based technologies

Canada's economic performance is a key determinant in ensuring a sustainable future for Canadians. Technologies will help Canada address its long-standing productivity and business R&D investment challenges.

They will also help deal with key environmental issues such as climate change, air and water pollution, waste, and contaminated sites.

Sustainable development can be advanced through the integration of innovative technologies and strategic organizational changes. The

development of innovative technologies requires investment in fundamental research, development and commercialization. Strategic organizational change refers to new business strategies and process-efficiency tools that can help lessen the private sector's ecological footprint through waste reduction and the more efficient use of materials, energy and labour. New approaches in marketing, communications and management processes are key contributors to firms' performance.

Canada needs a strong knowledge infrastructure to generate and apply scientific and technical knowledge to a range of areas, such as hydrogen-powered fuel cell technologies, renewable energy technologies (e.g., solar, wind and ocean), and bio-based technology and process applications.

Investing in the market development and commercialization of these technologies will also be critical in creating highly skilled jobs, and reducing GHG emissions and other air- and land-based pollutants.

Over the next three years, Industry Canada will continue to work with its partners to strengthen Canada's knowledge infrastructure to improve its R&D performance and promote technology and commercialization in critical, sustainability-enhancing



enabling technologies. Nine action plan items are intended to achieve this strategic outcome. Details on each are provided below.

Hydrogen Early Adopters (h2EA) Program

Hydrogen and hydrogen-compatible technologies continue to gain ground as viable alternatives to the internal combustion engine. Canada is a leader in the early development and commercialization of fuel cell technology in backup power modules, micro fuel cells for hand-held applications, and the automotive and utility vehicle market. The h2EA program fosters the development and early adoption of hydrogen, hydrogen-compatible technologies

and bridging technology (integrating hydrogen fuel cells with established technologies such as the internal combustion engine) in the marketplace. The program supports demonstration projects, which enable clients to test and showcase their existing technologies in working integrated models to demonstrate new concepts such as “hydrogen highways” and “hydrogen villages.”

Through March 2008, Industry Canada’s h2EA program will help accelerate the development and adoption of hydrogen technologies in order to create highly skilled jobs, generate new growth and investment opportunities, and reduce air pollution and GHG emissions.

Action Plan Item

Supports Federal Sustainable Development Environmental Quality Goal: Reduce Greenhouse Gas Emissions

Industry Canada, through its h2EA program, invests in new hydrogen technology demonstration projects that will bring Canada into the hydrogen economy.

Responsibility: Technology Partnerships Canada (TPC)

Website: tpc-ptc.ic.gc.ca/h2

Expected Three-Year Results

- Accelerated public and market awareness
- Hydrogen and hydrogen-compatible technologies accepted and adopted
- Establishment of consortia and networks
- Advancement of codes and standards for hydrogen technology and infrastructure
- Leveraged private sector R&D investment

Performance Indicators

- Level of awareness of program
- Number of hydrogen services and products launched
- Number of participants involved in demonstration projects
- Evidence of Canadian standards that become adopted nationally and internationally

Hydrogen Economy

Supporting Industrial Development

Industry Canada has supported a number of research and development and large-scale demonstration projects for hydrogen and fuel cell technologies under Technology Partnerships Canada's (TPC's) R&D program and the Hydrogen Early Adopters (h2EA) program, respectively. During SDS III, TPC invested approximately \$35 million in support of the development of important niche applications that continue to build on Canada's technology leadership position. These are critical to the development of the technology advancements necessary for future applications. Funding also supported two of Canada's large-scale demonstration initiatives: British Columbia's Hydrogen Highway and Toronto's Hydrogen Village. These projects showcase market demonstrations in real-world settings and stimulate the creation of supporting infrastructure, codes and standards, and awareness-raising activities.

Towards a National Hydrogen and Fuel Cell Strategy

Industry Canada, as co-chair of the federal Hydrogen and Fuel Cell Committee, has continued to work on the basis of the proposals outlined in *Towards a National Hydrogen & Fuel Cell Strategy: A Discussion Document for Canada*. Created in 2005, the document provides an initial examination of strategic opportunities for Canadian industry in global and domestic markets, and proposes possible actions and institutional arrangements that could enable Canada to capitalize on current and future market opportunities. This publication was used to engage hydrogen and fuel cell partners in industry, academia, and federal and provincial governments. It was an important tool in developing a Canadian vision, national targets and objectives for the Strategy.

Links

- **Hydrogen Economy Portal** (hydrogeneconomy.gc.ca)
- **Hydrogen Early Adopters program** (tpc-ptc.ic.gc.ca/h2)

Program for Strategic Industrial Projects Reporting (PSIP)

Industry Canada's Program for Strategic Industrial Projects (PSIP), delivered through TPC, was established to provide a framework within which a variety of large strategic investment projects by firms in the automotive sector could be administered. It advances and supports industrial research, pre-competitive development, and technology adaptation and adoption projects designed to encourage private sector investments.

Typically, individual projects under the PSIP are funded by the government, in whole or in part, from the fiscal framework. PSIP takes an investment approach and shares with its private sector partners in the risks and rewards. The program has nominal financial returns and economic benefits.

PSIP requires projects to contribute to the economic pillar of sustainable development, and encourages contributions to the environmental dimension of sustainable development.

Action Plan Item

Industry Canada, through PSIP, enhances reporting of sustainable development benefits by including applicants' contributions to the economic pillar of sustainable development in its program eligibility criteria and reporting obligations. It also encourages and reports any contributions to the environmental dimensions of sustainable development.

Responsibility: Technology Partnerships Canada

Website: tpc.ic.gc.ca

Expected Three-Year Result

- Enhanced sustainable development benefits identification and reporting

Performance Indicators

- Percentage of reported increase in energy efficiency and pollution prevention and reduction, and benefits from developed sustainable alternatives
- Dollar value of TPC contributions, amount leveraged, and level of payment on contribution agreement (Benefits Phase)
- Number and types of new or improved technologies developed, and incidence of diffusion or adoption of technology within companies

Industrial Development in Canada's Renewable Energy Sector

Considerable growth is projected for Canada's renewable energy sector, which presents opportunities for industrial development through technology commercialization, value chain management in the manufacturing sector and job creation. Expanding global markets are expected to generate further opportunity for Canadian companies and technology developers. By researching and promoting Canada's niche technological and manufacturing strengths, Canada will be better positioned to identify appropriate policy tools and approaches to create a domestic renewable energy industry in Canada. Investment and partnership activities will offer tangible benefits to

Canadian companies interested in expanding their business nationally and internationally. By participating in demonstration projects, Industry Canada will be able to promote Canadian technologies, and identify and facilitate appropriate partnerships between the research and business communities. An industrial development strategy for renewable energy will help Canada capitalize on the economic development opportunities presented by this rapidly expanding sector, and ensure the long-term competitiveness of Canada's renewable energy industry.

Industry Canada will work to identify and promote opportunities for renewable energy industrial development. Research will be carried out to identify Canadian technological strengths, manufacturing capabilities, economic impacts and trends,

and industrial development issues and opportunities. To promote renewable energy technology commercialization, the Department will engage in partnership demonstration projects in emerging renewables. Business partnership activities will be delivered to encourage domestic and

international collaboration toward a stronger renewable energy sector in Canada. The Department's efforts will culminate in an industrial development strategy, which will address issues such as technology-to-markets programming, international partnership promotion and capacity building.

Action Plan Item

Supports Federal Sustainable Development Environmental Quality Goal: Clean Air for People to Breathe and Ecosystems to Function Well

<p>Industry Canada will identify and promote opportunities for industrial development for renewable energy by:</p> <ul style="list-style-type: none"> • enhancing databases and directories of the renewable energy industry and the supply chain • conducting economic research, including forecasts for renewable energy sectors and subsectors • facilitating partnerships for the renewable energy sector, including demonstration partnerships • showcasing renewable energy capabilities in international forums • developing with stakeholders an industrial strategy for renewable energy <p>Responsibility: Resource Processing Industries Branch</p> <p>Website: strategis.gc.ca/rei</p>	
<p>Expected Three-Year Results</p> <ul style="list-style-type: none"> • Expanded public and private sector knowledge of business and technology capabilities, economic development trends and opportunities • Enhanced business development, demonstrations and expanded manufacturing capacity through new partnerships • Broadened economic development in the renewable energy sector in Canada and in Canadian firms that have an established presence in international markets 	<p>Performance Indicators</p> <ul style="list-style-type: none"> • Number of assessments on the economic benefits of renewable energy industries • Number of economic research projects and forecasts on the renewable energy sector • Number of new partnerships established that lead to business development and demonstrations • Number of international projects by participating renewable energy firms • Number of manufacturing facilities established in the renewable energy sector • Number of renewable energy technologies commercialized

The Strategy will help ensure the long-term sustainability of the renewable energy sector by investing in research and prototype testing, promoting domestic and international business partnerships along the value chain, and facilitating capacity building through training, education and certification programs.

Hydrogen and Fuel Cell Technology Awareness and Education

Canada is a leader in the global hydrogen and fuel cell technology sector. In order to maintain this leadership, Canada must keep pace with global trends and continue to innovate. There are many environmental and economic opportunities in the full-scale

commercialization of hydrogen and fuel cell technologies. Knowledge of these opportunities will be critical for deploying hydrogen and fuel cells into the marketplace, and for developing the skilled workforce that will sustain the future of the hydrogen and fuel cell technology industry in Canada. More needs to be done to raise awareness of the economic, environmental and social benefits of this technology and the role it can play in global energy systems.

As an advocate for hydrogen and fuel cell technology, Industry Canada will support education and awareness raising initiatives related to hydrogen and fuel cell technologies. These activities are important because they are critical to demonstrating fuel cell technology, developing codes and

Action Plan Item

Industry Canada will enhance Canada's online presence related to information on hydrogen and fuel cell technology, and will participate in selected forums to increase awareness and educate target audiences.

Responsibility: Resource Processing Industries Branch

Websites: Hydrogen and Fuel Cells
strategis.ic.gc.ca/epic/internet/inhfc-hpc.nsf/en/Home
 Hydrogen Economy Portal
hydrogeneconomy.gc.ca

Expected Three-Year Results

- Enhanced bilateral and multilateral relationships with domestic and international stakeholders
- Positive actions taken by target audiences as a result of increased awareness and knowledge of the hydrogen and fuel cell technology industry

Performance Indicators

- Number of formal partnerships (memoranda of understanding, joint R&D and demonstration projects) that illustrate a commitment to long-term development of the hydrogen economy
- Number of positive actions that lead to increased support to the sector, including increased number of media stories that portray the sector positively, increased investment to the sector and increased supplier agreements

standards, deploying the technology and eventually commercializing applications. The Department will work with stakeholders to ensure that knowledge is effectively communicated to target audiences to help accelerate commercialization.

Biorefineries

Biorefining is an emerging concept in which biomass from forests and agricultural crops is viewed as a renewable natural resource to be refined into its constituent parts. It is then transformed into a variety of products, including traditional fibre products such as paper; new products such as fuels, chemicals and materials; and fibre-reinforced moulded products for applications such as construction materials and automotive panels. These products include chemical building blocks or intermediates,

high-value-added specialty chemicals, and specialty cellulose for use in the manufacture of cellulose crystals for telecommunications and nano-manufacturing. Biorefining is receiving increasing interest in Canada from decision makers in federal and provincial governments, traditional industry sectors (pulp and paper, chemicals and energy), the research community in universities, the Pulp and Paper Research Institute of Canada, and other research establishments such as the Alberta Research Council.

The Canadian pulp and paper industry has always been and remains a key contributor to Canada's economy. In recent years, however, several factors have created a challenging economic environment for the Canadian pulp and paper industry, including competition from low-cost producing nations

Action Plan Item

<p>Industry Canada will work with partners in federal and provincial governments, research organizations, professional societies, industry associations and companies to foster the development of the forest biorefinery concept.</p> <p>Responsibility: Life Sciences Branch and Resource Processing Industries Branch</p>	
<p>Expected Three-Year Results</p> <ul style="list-style-type: none"> • Promotion of pre-hydrolysis step in wood pulping to create a sugar stream for fermentation into fuels and chemicals • Research priorities are identified by industry, and research networks are established to address information gaps in research and in manufacturing • Linkages are fostered among different industry sectors to enable the development of new value chains for new bioproducts 	<p>Performance Indicators</p> <ul style="list-style-type: none"> • Number of industry integration meetings held, number of participants and range of stakeholder groups engaged • Number of new research networks formed • Number of companies and research organizations participating in each research network • Number of research projects developed to address current gaps in knowledge and advance development of new chemical platforms • Number of demonstration projects in Eastern and Western Canada

and the high value of the Canadian dollar. To remain internationally competitive, Canada needs to create biorefineries by converting a large segment of the Canadian market to kraft pulping production. The undertaking will require the allocation of substantial human, structural and financial resources at each step.

Green Procurement: Energy and Environmental Technologies

Green procurement presents an important opportunity to achieve key federal objectives such as economic and industrial development, commercialization, and technology diffusion and adoption. The federal government's Green Procurement Policy came into effect on April 1, 2006. The policy aims to advance the protection of the

environment and support sustainable development by incorporating environmental performance considerations into government purchasing decisions. Key priorities for Industry Canada are to foster SMEs in Canada's environment industry and to

“To balance energy supply and demand, we must continue to push the boundaries of innovation and technology. Often, this means we must look far into the future.”

— Suncor Energy,
2005 Report on Sustainability
—*Stepping Forward Through
Innovation and Technology*

Action Plan Item

Supports Federal Sustainable Development Environmental Quality Goal: Reduce Greenhouse Gas Emissions

Industry Canada will work in partnership with other federal departments to advance the development and adoption of environmental and energy technologies to strengthen Canada's industrial base. The Department will also satisfy government economic, environmental and social objectives, and work to raise awareness by industry of federal procurement opportunities.

Responsibility: Service Industries and Consumer Products Branch

Website: pwgsc.gc.ca/greening/text/proc/pol-e.html

Expected Three-Year Result

- Increased awareness of emerging environmental and energy technologies within the federal government

Performance Indicators

- Number of emerging environmental and energy technologies discussed or promoted during Director General-level Interdepartmental Steering Committee on Green Procurement meetings
- Number of outreach event participants and their level of awareness of environmental and energy technologies and satisfaction with federal procurement opportunities

position them to take advantage of the economic development opportunities presented by the Green Procurement Policy.

Industry Canada supports the Green Procurement Policy and is actively involved in the Interdepartmental Steering Group on Green Procurement, established to consider government-wide priorities for green procurement. The Department supports the use of federal purchasing power to support the development of Canadian environmental technologies. It can contribute to the growth of the Canadian industry, and position Canada as a leader in advancing and adopting clean technologies. It can also provide the market stimulus necessary for wider market deployment and increase supplier competitiveness.

Council of Canadian Academies

The Council of Canadian Academies (CCA) is an arm's-length, not-for-profit organization that was established to assess the state of scientific knowledge underpinning key public policy issues. Its founding members are the Royal Society of Canada, the Canadian Academy of Engineering and the Canadian Academy of Health Sciences. The Government of Canada provided a

\$30-million, one-time conditional grant in July 2005, which entitles the government to five assessments per year over 10 years. Each assessment will likely take 18 months to two years to complete.

The assessments undertaken for the federal government will normally not contain specific policy recommendations. Rather, they will report on the relevant science, identifying what is known (or at least strongly believed) and where there are gaps in our knowledge. Such findings will be relevant for policy decisions in cases where scientific factors play a significant role.

Technology Partnerships Canada: Sustainable Development Benefits Reporting

Technology Partnerships Canada (TPC) is a special operating agency of Industry Canada that provides funding support for strategic R&D that produces economic, environmental and social benefits for Canadians. For a decade, it has been helping Canadian companies perform R&D to take new technologies closer to the marketplace, including environmental, aerospace and defence, and enabling technologies. These R&D projects have the potential to improve

Action Plan Item

<p>Industry Canada will solicit assessment topics of importance to the government's forward policy agenda from science-based departments and agencies. This request for proposals will be initiated biannually in conjunction with the Council of Canadian Academies.</p> <p>Responsibility: Science and Innovation Sector</p> <p>Website: scienceadvice.ca</p>	
<p>Expected Three-Year Result</p> <ul style="list-style-type: none"> Increased informed public debate and government decision making on public policy issues that have scientific and/or technical underpinnings 	<p>Performance Indicator</p> <ul style="list-style-type: none"> Number of references to Council of Canadian Academies assessments in public policy discussions and other strategic documents

the efficiency of production processes in traditional sectors, as well as support emerging technologies.

Since September 2005, TPC has been closed to new applications in the areas of environmental and enabling technologies. This part of the program was established to contribute to the development of Canadian environmental technologies, including energy, water and non-renewable resource conservation technologies; clean production technologies; and restoration technologies. All existing contracted TPC projects will continue.

Federal Greenhouse Gas Emission Memorandum of Understanding with the Canadian Automotive Industry

In April 2005, the federal government successfully negotiated a voluntary Memorandum of Understanding (MOU) with the automobile industry to reduce GHG emissions. The Canadian automobile industry agreed to offer and promote a wide variety of fuel-saving vehicle technologies to reduce GHG emissions by 5.3 megatonnes (Mt) annually by 2010. A key part of this

Action Plan Item

Industry Canada, through TPC, will enhance sustainable development benefits reporting by including an applicant's contribution to the economic pillar of sustainable development in its program eligibility criteria and reporting obligations. It will also encourage and report any contributions to the environmental dimension of sustainable development.

Responsibility: Technology Partnerships Canada

Website: tpc.ic.gc.ca

Expected Three-Year Result

- Enhanced sustainable development benefits identification and reporting under TPC and any replacement program

Performance Indicators

- Percentage of reported increase in energy efficiency, pollution prevention and reduction, and benefits from developed sustainable alternatives
- Dollar value of TPC contributions, amount leveraged, and level of payment on contribution agreement (Benefits Phase)
- Number and types of new or improved technologies developed, and incidence of diffusion or adoption of technology within companies
- Company revenues at time of funding, at end of the project, and after project

agreement is the establishment of a joint government–industry committee (known as the Joint GHG MOU Committee) to track and report on progress to the target. The committee consists of eight members, with four representatives each from government and industry. Its work is primarily technical in nature. Information on the work of the committee, including progress updates and reports, will be available to the public as it is released.

The federal government retains the option to utilize its legislative and regulatory instruments, as necessary, to ensure that the MOU’s objectives are achieved. Industry Canada was an original member of the federal steering committee that negotiated the MOU.

Action Plan Item

Supports Federal Sustainable Development Environmental Quality Goal: Reduce Greenhouse Gas Emissions

<p>Industry Canada will develop frameworks and methodologies for tracking the progress of the Canadian automobile industry MOU to reduce GHG emissions.</p> <p>Responsibility: Automotive and Transportation Industries Branch</p>	
<p>Expected Three-Year Results</p> <ul style="list-style-type: none"> • Achievement of the interim target of reduction of GHGs by 2.4 Mt by 2007 • Reduction of GHGs by 3.0 Mt by 2008 and 3.8 Mt by 2009 	<p>Performance Indicator</p> <ul style="list-style-type: none"> • Number of monitoring frameworks and methodologies in place to track the MOU

3.2 Sustainability Tools, Practices, Research and Awareness

Sustainable development strategic outcome: Increased use by firms, industries and institutions of sustainability and corporate social responsibility practices, and increased consumer awareness of sustainability issues

New organizational processes have become a key driver of sustainability performance. Companies are increasingly introducing process-efficiency tools and practices in order to make measurable improvements in firm-level productivity, as well as in environmental and social performance.

Firms that use these tools and practices often gain competitive advantages in the marketplace by exploiting “first-to-market” benefits associated with delivering less material-intensive products to consumers. Although a number of corporations have implemented these tools and practices, it continues to be a challenge for SMEs, mainly because of lack of awareness, time pressures and high implementation costs. Increasingly, however, the corporations that purchase from SMEs are driving this change through the value chain by requiring that SME suppliers adhere to specific international standards (e.g., the International Organization for Standardization, or ISO). Also, “market pull” factors such as heightened consumer

demand for more environmentally friendly products, which feature enhanced durability and functionality, have led to improved sustainability performance among firms.

Consumer behaviour and preferences can have a significant effect on the activities of businesses. Specifically, the choice to consume certain products and services and to adopt certain lifestyles can have positive and negative economic, environmental and social repercussions, which in turn present opportunities and challenges for firms.

Corporate social responsibility (CSR) initiatives have emerged in recent years as key drivers in the sustainability performance of Canadian industry. Many firms have demonstrated the productivity, environmental and social performance gains that accrue from integrating CSR practices into business and risk-management strategies. In addition, the concept of shareholder value is gradually being broadened to include non-financial aspects of firm performance, such as how businesses fulfill their environmental and social responsibilities to society. A number of firms have also taken substantial steps to improve accountability and transparency to shareholders by reporting publicly on their sustainability performance.



Industry Canada has a continuing role to play in further disseminating tools and practices related to process improvement, and in corporate social responsibility and sustainability. These tools and practices will enable companies to improve their triple-bottom-line performance and address increasing consumer demands for more sustainable products.

Eleven action plan items are intended to achieve this strategic outcome. Details on each are provided below.

Broadening the Use of Corporate Social Responsibility Management Tools and Applications

Corporate social responsibility (CSR) can contribute to realizing Canada's policy priorities, such as improved business performance and income growth, as well as contributing to Canadians' standard of living and quality of life. It is seen as the private sector's way to integrate the economic, environmental and social imperatives of their activities.

CSR often involves creating solutions to environmental and social challenges, and collaborating with internal and external

"With a focus on being a good corporate citizen, we are implementing business practices that support long-term sustainable growth while protecting the environment and improving the quality of life in the communities we serve."

— TELUS 2005 Business Review
(annual report)

Federal Departments Working Together on Corporate Social Responsibility

In 2006, Industry Canada renewed its original MOU on CSR with Environment Canada, Foreign Affairs and International Trade Canada, and Natural Resources Canada. This renewal will enable Industry Canada to continue cooperative efforts with its federal partners on projects of mutual interest, including those that encourage the dissemination of corporate responsibility and sustainability information, tools and practices in Canadian business.

strategis.ic.gc.ca/epic/internet/incsr-rse.nsf/en/Home

stakeholders to improve business performance. Industry Canada has contributed significantly to the following initiatives: the development of *Corporate Social Responsibility: An Implementation Guide for Canadian Business*; the development of an ISO social-responsibility guidance standard; the development of an Industry Canada CSR website; and consumer group research on sustainable development and climate change.

Industry Canada is committed to broadening the use of CSR management tools and applications in an effort to increase the number of firms that integrate CSR into the decision making of their organizations. CSR tools can be applied to corporate planning, operations, audit and evaluation, and productivity improvement.

Action Plan Item

Industry Canada will broaden the basis for Canadian industry to implement CSR by:

- supporting efforts to build convergence of CSR standards at the domestic and international levels (for example, Industry Canada will work to internationalize a voluntary guide on implementing CSR that it developed for Canadian industry in 2006)
- facilitating the development or demonstration of at least one new CSR tool that can be employed to help implement CSR-oriented business approaches, and at least one event that will aid in the application of CSR for management planning, implementation and evaluation purposes
- improving the consumer perspective on CSR by developing a consumer CSR checklist, developing a CSR-related tool, and pilot-testing the new CSR implementation guide within the Office of Consumer Affairs and posting this guide on the Industry Canada website
- supporting a minimum of two research studies to improve the understanding of CSR best practices applied in Canadian industry

Responsibility: Strategic Policy Branch and Office of Consumer Affairs

Website: strategis.ic.gc.ca/epic/internet/incsr-rse.nsf/en/Home

Expected Three-Year Result

- Enhanced knowledge capacity of CSR tools and wider application of CSR in the Canadian marketplace

Performance Indicators

- Number of web references to the new CSR international guide
- Number of visits to Industry Canada's CSR web page on the CSR implementation guide
- Number of visits to Industry Canada's CSR website
- Identification of enhanced CSR knowledge capacity in the SDS IV mid-term evaluation and SDS V issues scans

Promoting Corporate Responsibility and Sustainability Awareness

Canadian businesses have recently made notable gains in the area of CSR and have used these gains, in some circumstances, to improve their financial performance. Nonetheless, firms in Canada are still facing the challenge of assembling and using information more effectively to respond to calls from society to integrate social and environmental components into business strategies, operations and performance. A situation of imperfect

“BC Hydro’s environmental long-term goals are an integral part of ensuring that we will have a sustainable future for our business and for the next generation of B.C. residents. BC Hydro is working diligently to operate our business in ways that produce no net environmental impacts.”

— BC Hydro, *Reporting on Our Triple Bottom Line Performance*, Annual Report, 2006

Action Plan Item

Industry Canada will promote CSR and expand CSR information and awareness by:

- promoting corporate responsibility and sustainability at conferences, workshops and seminars
- supporting the quantity and quality of corporate sustainability reporting by Canadian industry, as well as partnering in related research on company and industry sector levels to develop a national perspective on corporate responsibility and sustainable performance in Canada
- improving and expanding the departmental CSR website
- recognizing best practices to enhance CSR skills and human capital for Canadian industry, as well as partnering on at least one initiative to develop a tool for improving the knowledge base and skills of business employees

Responsibility: Strategic Policy Branch

Website: strategis.ic.gc.ca/epic/internet/incsr-rse.nsf/en/Home

Expected Three-Year Result

- Expanded operation of CSR business-oriented approaches within a competitive Canadian marketplace

Performance Indicators

- Level of corporate responsibility and sustainability reporting by Canadian industry
- Conclusions from national progress reports on CSR performance by industry
- Recognition of best CSR practices within industry sectors
- Number of visits to the CSR website

information in the marketplace can induce businesses to use resources in a less-than-efficient manner. Availability of resources and effective CSR-oriented approaches can contribute to reducing business risks, managing liabilities, improving productivity and strengthening competitiveness.

Industry Canada is committed to helping industry make CSR more mainstream in order to better enable businesses to be strategic and competitive in the production and distribution of products and services. Expanded CSR information can improve economic efficiency by enhancing business knowledge capacity to take advantage of CSR business-oriented approaches and increase business performance. Increased strategic support for Canadian firms can help raise productivity and competitiveness. CSR-oriented firms can become more sustainable in markets where social and environmental challenges are changing rapidly.

Contributions Program for Non-Profit Consumer and Voluntary Organizations

The Contributions Program for Non-Profit Consumer and Voluntary Organizations, administered by Industry Canada's Office of Consumer Affairs, has been an important source of support for Canadian consumer groups for a number of years. The goal of the program is to strengthen the consumer's role in the marketplace through the promotion of timely and sound research and analysis, and the financial self-sufficiency of consumer and voluntary organizations.

Two types of funding are available under the program: research project contributions and development project contributions. The total budget is \$1 690 000 in 2006–07, of which up to \$300 000 can be awarded for development project contributions. The number and nature of projects, consumer

Action Plan Item

Industry Canada will make financial support available to non-profit consumer and voluntary organizations for research and analysis on consumer issues that affect the marketplace, including the environment and sustainable consumption.

Responsibility: Office of Consumer Affairs

Website: consumer.ic.gc.ca/contributions

Expected Three-Year Results

- Increased interest in sustainable consumption issues by non-governmental organizations (NGOs)
- Increased research performed by NGOs on sustainable consumption

Performance Indicators

- Number of sustainable consumption research projects submitted through the contributions program
- Number of NGOs that submit sustainable consumption research projects through the contributions program
- Number of final research reports
- Number of visits to the research abstracts in Industry Canada's Consumer Research Database

organizations and contribution amounts vary annually, based on a competitive submissions process. Priority areas for project contributions include issues associated with the “sustainable consumer.”

Consumers and Sustainability Policy Research

Consumer behaviour and preferences can have a significant effect on the activities of businesses. Specifically, the choice to consume certain products and services and to adopt certain lifestyles can have positive and negative economic, environmental and social repercussions, which in turn present opportunities and challenges for firms.

Industry Canada will perform policy research on consumers and sustainability. The research will aim to elevate the level of understanding of third-party sustainable consumption recognition, and will enhance the visibility of best practices in the sustainable development field by companies, NGOs and consumers. This increased knowledge of consumers’ preferences and behaviours will help to raise the competitiveness of Canadian firms by

boosting R&D and positioning businesses ahead of the curve, as they seek to develop new sustainable products and services to satisfy evolving demand.

Sustainable Manufacturing

Sustainable manufacturing promotes minimizing or eliminating production and processing wastes through eco-efficient practices, and encourages adopting new environmental technologies. Making gains in sustainable manufacturing is a central element to the future success of the Canadian economy. In today’s global economy, Canadian manufacturers face enormous pressures to stay competitive and maximize profit. In order to achieve these goals while adopting more sustainable approaches to manufacturing, Canadian manufacturers will have to view sustainable manufacturing management practices as more than a reaction to environmental regulatory pressures. They will also have to better understand the link between sustainability and improved profitability and competitiveness, and recognize the business case benefits associated with sustainable manufacturing. Finally, it will be

Action Plan Item

<p>Industry Canada will undertake policy research on consumers and sustainability. This may include, for example, examination of industry sector best practices in relation to consumers and sustainability, and examination of third-party recognition for sustainability claims related to consumer goods and services.</p> <p>Responsibility: Office of Consumer Affairs</p>	
<p>Expected Three-Year Result</p> <ul style="list-style-type: none"> Enhanced understanding at Industry Canada of consumers and sustainability 	<p>Performance Indicators</p> <ul style="list-style-type: none"> Amount of post-research findings on Industry Canada’s research database Number of visits and downloads to the research database website Number of announcements of the study findings in Industry Canada newsletters

important for them to consider a longer-term business case that addresses economic, environmental and social issues associated with a triple-bottom-line approach to corporate social responsibility.

Industry Canada will continue to help Canadian manufacturers build their competitive advantage by encouraging them to adopt sustainable development principles

and practices, including lean manufacturing, as well as strategies that promote convergence between profitability and sustainability. Industry Canada will work to create awareness of practices and strategies for integrating sustainable development into manufacturing processes through outreach activities, partnerships, research, and policy analysis and development.

Action Plan Item

Supports Federal Sustainable Development Environmental Quality Goal: Clean Air for People to Breathe and Ecosystems to Function Well

Industry Canada will encourage Canadian manufacturers to adopt sustainable development principles and practices, including lean manufacturing, as well as strategies that seek convergence between profitability and sustainability.

Responsibility: Policy and Sector Services Branch

Expected Three-Year Result

- Increased number of Canadian firms implementing sustainable manufacturing practices

Performance Indicators

- Number of lean manufacturing workshops, outreach activities and business success stories related to sustainable manufacturing
- Number of new sustainable manufacturing partnerships and policies
- Number of visits to Industry Canada's sustainable manufacturing and lean manufacturing websites

Sustainable Manufacturing

The Sustainability Paradigm: A New Mindset

For business to prosper over the long term, strategic sustainable behaviour is necessary. It is an investment in good business health and in lasting success.

Competitive Pressures

Globally, businesses face the challenge of meeting growing demands from customers and suppliers to address environmental and social issues. To ensure they remain viable competitive players locally and globally, Canadian companies of all sizes must explore new markets and niche opportunities, and find new and cost-effective ways to exploit them.

Sustainability Challenges Can Be Solved at a Profit

Within the sustainability paradigm, there are two key themes: doing more with less, and doing better through alternative or new practices. Both themes are drivers for identifying new market opportunities, cost savings, enhancing productivity, implementing new technologies and process change, and social responsibility.

Green production is the practice of achieving economic gain by improving environmental and social performance, which ultimately benefits society as a whole. It drives a business to improve productivity while reducing environmental impacts (such as waste, emissions, energy use, toxicity and dangerous work practices), and improves total performance by addressing the root causes of problems with new approaches. It transforms a business from the traditional single-bottom-line focus to triple-bottom-line thinking.

Productivity and quality are a function of design, input and process. By actively managing the factors of production and manufacturing, a business can realize productivity and economic gains. The green production concept is directly linked to productivity. Organizational or process change does not have to be disruptive or technology-dependent. Simple incremental improvements in processes and practices, combined with employee training, can make a big difference.

Current Sustainability Strategies and Practices Being Used in Canadian Business

- eco-efficiency
- lean manufacturing and just-in-time manufacturing
- corporate social responsibility
- ISO 14001
- environmental management systems
- life-cycle management
- green supply chain management / total quality environmental management
- design for environment
- process re-engineering
- eco-industrial networking

Industry Canada's Resource Processing Industries Branch has served as the liaison with industry, the research community and experts to foster greater collaboration and accelerate the adoption and application of sustainable strategies.

Web Links

- **Building sustainable enterprises:** workshop materials (strategis.ic.gc.ca/bse)
- **Lean manufacturing:** *Canadian Resource Guide to High Performance Manufacturing* (strategis.gc.ca/lean.manufacturing)

Sustainable Buildings

Green (sustainable) buildings are designed, constructed and operated to significantly reduce or eliminate short- and long-term negative impacts on the environment. Green buildings are architecturally designed to address issues such as energy consumption, hazardous materials, water quality, and sewer and water systems. In addition, retrofit projects, which address air, lighting and acoustics, can correct indoor environment problems to maximize comfort and improve health and productivity. The Canadian green building movement has been evolving at a fast pace over the last two years. Canadian industry is becoming

increasingly aware of not only the critical role that green buildings play in addressing environmental concerns, but also the potential financial savings when constructing and engineering green buildings.

Industry Canada will continue to promote awareness of the advantages and benefits of green buildings to builders and consumers. By encouraging the use of sustainable materials and efficient energy and water systems, Industry Canada will build awareness of the benefits of such technologies. As energy prices rise and water conservation becomes a top priority, businesses will seek ways to reduce their

Action Plan Item

Industry Canada will continue to build awareness and promote the benefits of green buildings to builders and consumers by:

- developing an awareness/training program with the Canada Green Building Council to promote green building technologies and practices
- creating a building performance evaluation protocol that will allow for comparative measurement of green buildings between Leadership in Energy and Environmental Design-certified buildings and other green but not certified buildings
- identifying fiscal incentives and other measures that will improve the uptake of green building design and construction
- recognizing processes, programs and best practices in other countries

Responsibility: Service Industries and Consumer Products Branch

Expected Three-Year Result

- Increased design, construction and operation according to green building practices of Canadian builders

Performance Indicators

- Number of awareness/training program attendees and number of regions reached
- Number of buildings evaluated and number of new variables added to building performance evaluation
- Number of partners working to promote uptake of green practices
- Number of consultations with stakeholders to identify incentives

energy consumption to ensure cost competitiveness. Energy-efficient buildings offer long-term energy savings, lower operating costs, higher resale values, and provide competitive leasing advantages over standard buildings. Finally, there appears to be a trend in foreign countries to require higher environmental standards for imported technologies and products, which may present more opportunities for Canadian exporters that produce and use sustainable building materials and systems.

Environmental Performance of Small and Medium-Sized Enterprises

Many large Canadian industrial sectors have been moving toward the self-regulation of their environmental impacts. Consequently, they have realized significant efficiencies from adopting environmental technologies, implementing environmental management systems and other process-improvement tools and practices. However, with respect

to SMEs, there remains a significant challenge in terms of encouraging a critical mass of firms to implement such measures. SMEs span a diversity of sectors, represent about 97 percent⁶ of Canadian businesses, and account for approximately 45 percent⁷ of Canada's gross domestic product. Although Industry Canada offers a number of programs and services to assist SMEs, they are chronically under-subscribed. Further efforts, therefore, are needed to promote their take-up.

Industry Canada will continue to identify market gaps, provide information, raise awareness and encourage SMEs to implement sustainability-enhancing tools, practices and technologies. The Department will also reinforce the business case for investing in process improvements and new technologies. The business case includes better productivity performance, increased competitiveness and improved environmental performance through energy efficiency and waste reduction measures.

Action Plan Item

Supports Federal Sustainable Development Environmental Quality Goal: Reduce Greenhouse Gas Emissions

<p>Industry Canada will continue to encourage SMEs to improve their environmental performance by identifying barriers and opportunities for SMEs to use new technologies to improve their productivity. Work will also be undertaken to identify incentives, and develop and test delivery models through workshops and presentations to stakeholders.</p> <p>Responsibility: Service Industries and Consumer Products Branch</p>	
<p>Expected Three-Year Result</p> <ul style="list-style-type: none"> Enhanced competitiveness and efficiency of SMEs due to an increased uptake of environmental practices 	<p>Performance Indicators</p> <ul style="list-style-type: none"> Number of SMEs that have implemented environmental practices Number of partnerships formed and number of businesses reached through new partnerships

6 Debus, Aneliese. *Small Business Profile: An Overview of Canada's Small and Mid-sized Business Sector*. Canadian Federation of Independent Business, December 2005.

7 Public Works and Government Services Canada: "Importance of SMEs" (2005). Accessed at: pwgsc.gc.ca/acquisitions/text/sme/importance-e.html, September 2006.

Comparative Research on Renewable Energy Policy Instruments

Canada has generally not had significant experience in using market-based instruments to induce environmental behavioural change among firms and individuals. Empirical evidence suggests that market-based approaches are better than command and control instruments, such as regulations. In fact, in the past 20 years, significant research has been done on the abatement costs of environmental objectives, demonstrating the substantial benefit of a market-based approach. Industry Canada will apply the results of this literature to the Canadian context in order to advocate for the further use of market-based policy instruments to address Canada's environmental sustainability and competitiveness challenges.

social responsibility. Canadian educational institutions play a critical role in preparing the next generation for employment in the expanding field of sustainable development. Although some post-secondary education programs have succeeded in building sustainable development knowledge capacity, others are being challenged to improve their knowledge levels in this area.

In the past, Industry Canada has partnered in compiling comparative data on the extent to which university students in schools of business, schools of engineering and faculties of law are exposed to topics related to sustainable development in their curricula. There is an opportunity to broaden and deepen the nature of these comparative assessments. Industry Canada will partner on initiatives to undertake similar studies and assessments of post-secondary programs.

Action Plan Item

Industry Canada will undertake research and analysis on economic and fiscal instruments in support of renewable energy.

Responsibility: Strategic Policy Branch and Micro-Economic Policy Analysis Branch

Expected Three-Year Result

- Enhanced understanding of the possible use of market-based instruments in sustainable development-related policies

Performance Indicator

- Number of research studies undertaken and economic analysis performed on market-based instruments

Sustainable Development in Post-Secondary Education

The demand for environmental and sustainable development experts is growing across a range of occupations and industry sectors. This increased demand is affecting occupations such as engineering and related technical areas, business management and law. These occupations are being pressured to improve knowledge capacity in sustainable development areas such as eco-efficiency, environmental performance, and corporate

Action Plan Item

Industry Canada will support a minimum of one research initiative leading to the comparative assessment of post-secondary programs (e.g., schools of architecture and urban planning) in terms of the extent to which their students are exposed to sustainable development concepts, principles and practices in their curricula.

Responsibility: Strategic Policy Branch

Expected Three-Year Result

- Greater exposure of Canadian post-secondary students to sustainable development concepts, principles and practices

Performance Indicators

- Number of published reports on the comparative assessment of Canadian universities and/or colleges on integration of sustainable development in programs and activities
- Number of integrated sustainable development concepts, principles and practices in post-secondary programs

Canadian Environmental Solutions (CES) Database

Canadian Environmental Solutions (CES) is an online searchable database that includes more than 1600 exporting and export-ready Canadian companies that provide technologies and expertise to address the environmental challenges faced by every sector of the economy. It connects companies to new customers and market opportunities, and provides information about the capabilities of Canadian businesses.

Government, industry and foreign buyers use the CES to identify Canadian environmental firms that are capable of serving the needs

of the global marketplace. CES is regularly promoted nationally and internationally at major environment-related events, such as GLOBE, AMERICANA, the Conference of the Parties to the United Nations Framework Convention on Climate Change, and other sector-specific events.

Industry Canada will evaluate and update the CES website to ensure that its design is interactive and informative. This work will enable the CES to become a more powerful tool for forming business partnerships. It will also encourage more sustainable production and consumption through awareness of and access to contact information for environmental firms.

Action Plan Item

<p>Industry Canada will update and evaluate the Canadian Environmental Solutions (CES) Database to determine opportunities to enhance its effectiveness and usability by the Canadian environmental industry.</p> <p>Responsibility: Service Industries and Consumer Products Branch</p> <p>Website: strategis.ic.gc.ca/epic/internet/incses-sec.nsf/en/Home</p>	
<p>Expected Three-Year Results</p> <ul style="list-style-type: none"> • Increased partnerships among environmental businesses • Greater integration of sustainable practices into operations 	<p>Performance Indicators</p> <ul style="list-style-type: none"> • Number of matches in the Canadian company capabilities database for new categories • Number of companies added to the CES • Number of new categories and interface and information updates • Number of specific marketing strategies to promote the CES

Computers for Schools

Annually since 1993, Computers for Schools (CFS) has been refurbishing approximately 100 000 computers used by the federal government and the private sector. The refurbished computers are redistributed to schools, libraries and non-profit learning organizations throughout Canada. This initiative has addressed a number of persistent barriers to wide access to the Internet and information and communications technologies (ICTs). Such

barriers include affordability, digital literacy, disabilities, awareness and geography. For example, access to the Internet is significantly lower for persons who have a low income or low level of education.

Industry Canada's leadership role in collecting and refurbishing surplus moveable Crown assets, such as surplus desktop and laptop computers, has contributed to the diversion of large quantities of toxic waste that would otherwise have been sent to landfills.

Action Plan Item

Industry Canada will continue to work with government, industry and other stakeholders to refurbish and distribute computers to schools, libraries and not-for-profit organizations.

Responsibility: Information Highway Applications Branch

Website: cfs-ope.ic.gc.ca (Computers for Schools)

Website: www.tbs-sct.gc.ca/pubs_pol/dcgpubs/MaterielManage/dsmca_e.asp

(Treasury Board Secretariat policy on the disposal of surplus moveable Crown assets)

Expected Three-Year Results

- Enhanced learning opportunities and skills development through greater access to technology
- Increased diversion of toxic substances from landfills

Performance Indicators

- Number of computers refurbished for schools, libraries and non-profit organizations
- Tonnage diverted from landfills due to CFS re-use and recycling activities

3.3 Sustainability Practices and Operations within Industry Canada

Sustainable development strategic outcome: Increased implementation of greening operations and practices, and integration of sustainable development principles into departmental planning, performance measurement and evaluation frameworks

In order for Industry Canada to credibly encourage the use of sustainability practices within Canadian industry, it is important that the Department continues to ensure that its internal operations are managed sustainably. Industry Canada has, therefore, strived for continuous improvement in the sustainability of its operations. It has also made considerable progress in recent years in integrating sustainable development principles into its policy, planning, program and evaluation strategies and in its senior management decision-making processes. For instance, its Strategic Environmental Assessment (SEA) process is an important aspect of using a sustainable development management systems approach to improving policy capacity. In addition, employees have been provided training in sustainable development and awareness-raising programs in an effort to encourage the development of a culture of sustainability. These activities also increase the overall sustainability knowledge capacity of the Department.

Industry Canada's "3Rs" Program

Industry Canada continues efforts to further green its internal operations and create an eco-friendly workplace through its "3Rs" program:

- **Reduce:** Cut down on office consumables, use double-sided printing and photocopying, encourage sustainable transportation (Eco-Pass, Green Hotels) and reduce solid waste.
- **Re-use:** Re-use office consumables, including toner cartridges for laser printers.
- **Recycle:** Recycling should include batteries, toner and ink cartridges, mixed paper, clear glass, metals, plastic and composting. The recycling program will be strengthened to address the disposal of small office items that contain metals (e.g., BlackBerrys, cell phones, label makers).

The Department will respond to two important government-wide initiatives related to its sustainability operations and practices: the 2004 amended SEA guidelines and the 2006 federal Green Procurement Policy (and associated Public Works and Government Services Canada *Guidance on Greening Government Operations*).



Six action plan items are intended to achieve this strategic outcome. Details on each are provided below.

Greening Operations

Industry Canada is committed to reducing resource consumption and waste in its operations. It has a comprehensive greening operations plan in place that is continuously improved, and which is consistent with the government-wide priorities regarding building and vehicle fleet operations.

The 2006 federal Green Procurement Policy requests that departmental sustainable development strategies report on actions concerning three specific outcomes:

(1) green procurement targets for 40 key commodities representing 90 percent of the government's purchases; (2) the executive vehicle fleet retooled to exclude cars over three years old unless they are four-cylinder, hybrid or e-85 (ethanol-powered) vehicles; and (3) five new federal buildings that will meet leading building standards and an energy assessment

Action Plan Item

Supports Federal Sustainable Environmental Quality Goal: Reduce Greenhouse Gas Emissions

Industry Canada will continue to promote the greening of its operations in the following key areas:

- efficient energy consumption in buildings to reduce GHG emissions
- green procurement and fleet management to decrease GHG emissions
- waste management to reduce the negative impacts of landfill sites
- land-use management to control environmental risk
- regulatory compliance to manage environmental regulatory obligations
- green stewardship to build employee awareness and engagement

Responsibility: Facilities Management Branch

Expected Three-Year Results

- Reduced energy consumption, reduced material sent to landfill, increased use of recycled material and reduced use of consumables
- Improved awareness among Industry Canada employees of environmental practices and increased purchases of environmentally efficient products
- Achievement of full compliance with environmental regulations

Performance Indicators

- Reduced GHG emissions and building energy consumption, increased fuel efficiency of the vehicle fleet and reduced costs, collection of recycled products, and fewer products sent to landfill
- Level of feedback from purchasing agents
- Number of employees reached through greening initiatives and number of visits to the greening operations website
- Documented evidence of regulatory compliance information

conducted for all existing buildings. Industry Canada will contribute, as appropriate, to these government-wide goals and improve other aspects of its greening operations programming.

Renewed Strategic Environmental Assessment

A Strategic Environmental Assessment (SEA) provides information on potential and anticipated environmental effects of a policy, plan or program, and plays an important role in enhancing the sustainability of an initiative. SEA requirements are detailed in the *Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals*. In 2004, the Cabinet Directive was amended to include the publication of public statements when a detailed SEA is conducted.

Industry Canada has an SEA process in place that has been audited and rated as “satisfactory” by the Commissioner of the Environment and Sustainable Development (CESD). However, the CESD’s 2004 audit report and a subsequent Industry Canada internal review both suggested that improvements to the Department’s SEA regime were warranted. Consequently, Industry Canada is revisiting its SEA regime to make improvements so that it is in full compliance with the Cabinet Directive. Industry Canada will also enhance its SEA regime by improving its SEA guidance, questionnaire and training. In addition, the Department will include preparation and publication of public statements in its SEA processes and make its SEA website publicly accessible. The website will include

Action Plan Item

Supports Federal Sustainable Development Management Goal: Strengthened Federal Governance and Decision Making to Support Sustainable Development

Industry Canada will improve and update its SEA regime by incorporating public statements into it, and by amending its guidance, questionnaire, tracking system and training materials.

Responsibility: Strategic Policy Branch

Website: strategis.gc.ca/sd

Expected Three-Year Results

- Fulfillment of Industry Canada administrative and operational obligations required by the Cabinet Directive
- Increased quality of all SEAs completed by Industry Canada
- Greater understanding by officers of the potential environmental impacts of policies and programs
- Improved communication with the public

Performance Indicators

- Number of satisfied users with the renewed SEA approach
- Number of participants at SEA-related courses and number of satisfied participants
- Number of visits to the public stakeholder interest section of Industry Canada’s publicly accessible SEA website

Industry Canada's SEA questionnaire, training materials and other useful guidance. Taken together, these changes will increase transparency and accountability of decision making with respect to the environmental impacts of Industry Canada's policies, plans and programs.

Sustainable Development Senior Management Champions

Industry Canada will reinforce efforts to build sustainable development capacity and encourage a culture of sustainability within the Department. This action item involves further integrating sustainable development principles into policy, planning, programs and decision making. Industry Canada's

sustainable development management frameworks for planning, performance measurement, reporting and evaluation have become well established within departmental processes and systems. The Department plans to further reinforce these efforts through a range of improved strategic planning and management activities. For instance, the Department will explore options for integrating sustainable development into senior management performance agreements. Senior management will also be encouraged to seek opportunities to promote sustainable development principles and practices to external stakeholders and partners, such as individual firms, industry associations and consumer groups.

Action Plan Item

Supports Federal Sustainable Development Management Goal: Strengthened Federal Governance and Decision Making to Support Sustainable Development

Industry Canada will name senior management champions to continue to further integrate sustainable development into the Department's Program Activity Architecture and improve its performance measurement and reporting system.

Responsibility: Strategic Policy Branch, and Service Industries and Consumer Products Branch

Expected Three-Year Results

- Sustainable development is integrated into Industry Canada's Program Activity Architecture (*Report on Plans and Priorities* and *Departmental Performance Report*)
- Increased sustainable development knowledge, awareness and collaboration between the Department and its stakeholders/partners

Performance Indicators

- Number of branches within Industry Canada that are integrating sustainability into their planning and reporting practices
- Number of consultations with Industry Canada stakeholders/partners
- Number of senior management champions designated
- Number of initiatives undertaken that are supported by senior management

Sustainable Development Awareness, Training and Employee Challenge

Industry Canada has a responsibility, based on its legislative mandate and policy agenda, to promote sustainable development to management and employees. Greater awareness of sustainable development tools and practices will help support the development and adoption of policies, programs and initiatives that incorporate sustainable

development principles and practices. Promotional efforts within the Department through its sustainable development website, its internal communications products, and the preparation of specific industry case studies will help inform and engage discussion of the Department's continuing role in this policy field.

The Department will continue to offer a sustainable development course for employees and offer further learning opportunities for management. It will also

Action Plan Item

Supports Federal Sustainable Development Management Goal: Strengthened Federal Governance and Decision Making to Support Sustainable Development

Industry Canada will develop and coordinate initiatives to raise awareness, increase understanding and improve the overall integration of sustainable development into its operations. These initiatives will include:

- creating inventories of research and best practices
- coordinating seminars and courses
- contributing to consumer awareness and eco-efficient supplier activities
- managing a sustainable development employee challenge initiative

Responsibility: Strategic Policy Branch

Website: strategis.gc.ca/sd

Expected Three-Year Result

- Increased capacity within Industry Canada to fully integrate sustainable development into all programs, policies and plans

Performance Indicators

- Number of sustainable development-related research studies undertaken
- Number of sustainable development articles in *This Week @ IC*
- Number of participants in sustainable development courses and seminars
- Number of employees that carpool to work
- Number of employees that select accommodations that have an Eco-Rating

work in partnership with other federal departments and the Canada School of Public Service to support the delivery of federal training materials in sustainable development.

Industry Canada will also challenge employees to contribute to reducing GHG emissions and air pollution by carpooling and using public transit. They will also be encouraged to select accommodations with an Eco-Rating when travelling on government business.⁸

Telework and Sustainable Development

The 2002 Public Service Employee Survey reported that only 5 percent of government employees benefit from telework arrangements. The federal government has had a telework policy in place since December 1999, but it is clearly underutilized. On average, Canadians spend 12 days per year (275 hours) commuting to work, which is a daily average of 63 minutes, up from 54 minutes in 1992. The average

transit user takes 106 minutes to get to work and home, up from 94 minutes in 1992. Increased energy prices and congested roads support the call for a re-examination of telework as a commuting option. Telework provides a number of advantages for employers and employees, from improving work-life balance to reducing office space requirements. It also helps to reduce GHG emissions, alleviate pressures on urban infrastructure, and supports a healthier society, providing employees with more personal time and work flexibility. The Department will examine the possible use of information technology options to ensure employees can telework more efficiently. Industry Canada will support and promote telework by raising awareness of employees and managers on the benefits of teleworking.

Action Plan Item

<p>Industry Canada will raise awareness and build managerial support for more teleworking among employees.</p> <p>Responsibility: Strategic Policy Branch, and Service Industries and Consumer Products Branch</p> <p>Website: strategis.ic.gc.ca/epic/internet/insd-dd.nsf/en/home</p>	
<p>Expected Three-Year Result</p> <ul style="list-style-type: none"> Greater utilization of telework by Industry Canada employees 	<p>Performance Indicators</p> <ul style="list-style-type: none"> Number of Industry Canada employees teleworking Amount of GHG emissions reduced and kilometres not travelled

⁸ Eco-Rating programs are voluntary, graduated rating systems designed to identify accommodations that are committed to improving their fiscal, environmental and social performance.

Mid-Term Evaluation of Sustainable Development Strategy 2006–09

Industry Canada will perform a mid-term evaluation of its SDS IV in fiscal year 2007–08. This will provide management with an analysis of the Strategy's strengths and weaknesses, lessons learned, and potential areas of interest for Industry Canada's *Sustainable Development Strategy 2009–12*.

The study will focus on the SDS's rationale, results to date and cost-effectiveness. It will be conducted over the course of approximately five months, and will include interviews and surveys with stakeholders, analysis and reporting. The report will be published and posted on Industry Canada's sustainable development website.

Action Plan Item

<p>In fiscal year 2007–08, Industry Canada will conduct a mid-term evaluation of SDS IV, which will examine its rationale, results to date, the cost-effectiveness of SDS IV, and will provide an update on SDS III. The findings will be used when preparing the Department's SDS V.</p> <p>Responsibility: Audit and Evaluation Branch</p>	
<p>Expected Three-Year Result</p> <ul style="list-style-type: none"> Enhanced Industry Canada capacity and stakeholder engagement to prepare SDS V 	<p>Performance Indicator</p> <ul style="list-style-type: none"> Departmental Audit and Evaluation Committee approval of the SDS IV mid-term evaluation report and the management response

4. Industry Canada's Sustainable Development Management System

Industry Canada's *Sustainable Development Strategy 2006–09* is based on a sustainable development management system with the following life cycle: (1) planning; (2) implementation; (3) performance measurement and evaluation; and (4) reporting.

Planning

The SDS is a three-year, Department-wide plan for sustainable development prepared using the foundation pieces (internal and external issues scans and mid-term evaluation of the third strategy) recommended by the *Guide to Green Government* (1995), and an internal process that involved officers and senior management from every sector of the Department.

The SDS's strategic outcomes and action items are also aligned with Industry Canada's *Report on Plans and Priorities* (RPP) through its Program Activity Architecture, where appropriate, and under its strategic outcomes, expected results and performance indicators. The Strategy's framework is highlighted in Section 3 of the RPP.

Implementation

Section 3 presents the 26 action plan items in SDS IV, to be delivered by 12 responsibility centres across five sectors of the Department. The Strategy has been built to focus on those areas in which the Department has a "substantial opportunity, given its nature and mandate, to advance sustainable development," as directed by the

Commissioner of the Environment and Sustainable Development in her letter of April 2006 to Deputy Ministers. The letter also outlined her expectations and provided guidance for the fourth round of sustainable development strategies.

As with previous strategies, the Department will need flexibility in terms of responding to changes in governmental and departmental policy directions, as well as branch resources, during the three-year implementation period. If modifications need to be made to specific activities associated with a particular action item, these will be explained in the requisite implementation reports that will be publicly available on Industry Canada's sustainable development website for each of the six semi-annual reporting periods, ending in December 2009.

Performance Measurement and Evaluation

Industry Canada has further refined its results chain performance measurement and reporting framework to more effectively measure immediate (one-year) and intermediate (two- or three-year) outcomes. In June 2006, the Department held its

first-ever performance measurement workshop for officers that were in the process of developing SDS action items. The goal of the workshop was to provide further guidance on the results chain, how to set performance expectations and indicators, and how to communicate Industry Canada's performance story more effectively, going beyond solely reporting on activities and outputs.

In fiscal year 2007–08, the Department will undertake a formative evaluation study of this strategy to provide senior management with feedback on the strengths, weaknesses and lessons learned in anticipation of developing SDS V in 2009.

Reporting

A critical part of Industry Canada's sustainable development management system is performance reporting. This allows

for senior management oversight on the implementation of sustainable development strategies. Thus, the implementation of SDS IV will be accompanied by comprehensive semi-annual performance reports to the Directors General Policy Committee and the Deputy Minister during the three-year implementation period.

The Department also reports on its sustainable development performance in its *Departmental Performance Report* (DPR), which presents sustainable development accomplishments considered against planned performance expectations, as set out in the RPP. Similar to the RPP, these are reported in both the body of the DPR and in the supplementary information section.

Appendix A:

Departmental Profile

The Department's mandate is to help make Canadians more productive and competitive in the knowledge-based economy, thus improving the standard of living and quality of life in Canada. Industry Canada's policies, programs and services help support a dynamic and innovative economy that:

- provides more and better-paying jobs for Canadians
- supports stronger business growth through continued improvements in productivity and innovation performance
- gives consumers, businesses and investors confidence that the marketplace is fair, efficient and competitive
- integrates the economic, environmental and social interests of Canadians

In order to foster growth and create high-quality, well-paying jobs, the Government of Canada has set as one of its core priorities the building of a 21st-century economy. Industry Canada will continue to work in support of this priority through its strategic outcomes:

- a fair, efficient and competitive marketplace
- an innovative economy
- competitive industry and sustainable communities

These three strategic outcomes are mutually reinforcing. Sound marketplace frameworks help establish a business environment that supports innovation, investment and entrepreneurial activity. Fostering innovation in science and technology helps ensure that discoveries and breakthroughs happen here in Canada, and that the social and economic benefits of these innovations contribute to improving Canadians' standard of living and quality of life.

Encouraging investment in technology will help Canadian businesses compete in the global marketplace and increase opportunities for trade. Successful businesses combine with thriving social enterprises and a sound environment to form the sustainable communities that attract investment. Taken together, the Department's strategic outcomes support growth in employment, income and productivity, and promote sustainable development in Canada.

Appendix B:

Foundation Studies and Stakeholder Consultations

Foundation Studies

A key part of building Industry Canada's sustainable development strategies has always been the preparatory research and analysis done through its foundation studies. The Department contracts external expertise to do this work in order to obtain an independent assessment of its performance. Lessons learned help inform the preparation of a new strategy. The following three foundation studies were undertaken in 2005–06:

- an internal issues scan for SDS IV
- an external issues scan for SDS IV
- a mid-term evaluation study of SDS III

Internal Issues Scan

The approach for Industry Canada's internal issues scan involved interviews with 32 management and professional staff within Industry Canada. The consultation process involved representatives from a cross-section of branches within the Department. Documents reviewed included previous sustainable development internal and external issues scans for SDS I, SDS II and SDS III; previous evaluations of sustainable development initiatives; reports of the Commissioner of the Environment and Sustainable Development; Industry Canada internal reports and presentations on departmental sustainable development initiatives; and various other articles and publications on sustainable development in general. The results of the scan represent a self-assessment by the Department of relevant sustainable development issues that Industry Canada could potentially address during 2006–09. Key issues identified included:

- supporting the development of R&D infrastructure and human resources
- enabling the development and commercialization of sustainable development technologies
- promoting the adoption of sustainable development management systems and tools
- fostering sustainable development in the marketplace
- advancing corporate responsibility and sustainability
- promoting sustainable development as a good business practice
- raising Industry Canada's capacity building to increase the implementation of sustainable development principles and practices in the Department

External Issues Scan

Industry Canada's external issues scan involved 31 interviews with Industry Canada stakeholders and external clients in order to identify sustainable development-related gaps and challenges. The external issues scan examined the following six specific industry sectors: forestry, oil and gas, information and communications technologies, plastics, cement and concrete products, and steel products. The External Issues Scan is intended to develop an understanding of sustainable development issues from the standpoint of Industry Canada's clients and stakeholders. They expressed a desire for:

- more leadership on sustainable development by Industry Canada within the federal government
- more research and cost/benefit analysis of sustainable development and CSR (i.e., the business case for sustainable development)
- improved business environment achieved through appropriate policy development
- more Industry Canada engagement with the private sector, including promotion and consultation with respect to sustainable development
- more support from Industry Canada and the federal government for R&D, innovation and commercialization
- more capacity development (skills and training) within all levels of Industry Canada, the private sector and academia

Mid-Term Evaluation

Industry Canada's mid-term evaluation was required as an input to the development of SDS IV and to assess the achievements to date of SDS III action items. The mid-term evaluation, which also included an update on results from SDS II, was a "formative" evaluation focused on relevance of the initiative, delivery and achievement of targets, direct outputs from action items, short-term outcomes, constraints and lessons learned. It was based on analysis of interviews with departmental officials, as well as a review of literature and monitoring reports and files. Major lessons learned and recommendations included:

- consolidate action items (SDS III was a substantial improvement)
- encourage intra-departmental communication — a more "people-centric" approach and dialogue is required
- enhance reporting — streamline capacity to roll up results and improve key metrics (performance indicators)
- build partnerships — build on Industry Canada's strengths in partnerships and collaboration as a sustainable development policy and program delivery tool
- anticipate requirements of a cumulative evaluation of SDS I, SDS II and SDS III, and compile case studies, metrics, results, best practices and success stories

Complete versions of the three foundation studies are available at strategis.ic.gc.ca/sd.

Stakeholder Consultations

Industry Canada consulted internal and external partners and stakeholders through the following meetings, workshops and consultations.

1) Industry Canada's SDS IV Preparatory Meeting

Industry Canada convened an SDS IV preparatory meeting on April 5 and 6, 2006. Its purpose was to provide context and strategic direction for building the Department's new strategy. The objectives of the session were: 1) to engage the participation of Industry Canada Portfolio officials in the preparation of SDS IV; and 2) to identify overarching themes, strategic outcomes and action item deliverables to be pursued in SDS IV.

Approximately 80 Industry Canada management and staff attended. They recommended that Industry Canada:

- play an advocacy role to promote sustainable development
- invest in R&D, technology commercialization and diffusion of renewable sources of energy
- increase sustainable development capacity within firms, industries and communities by providing more services to business (information, standards, demonstration projects, market levers, tools and guidelines), and economic and industrial analysis on the benefits of sustainable development practices
- enhance emphasis on the fostering of a business climate that supports sustainable development through adjustments of regulatory and tax environments
- develop and adopt standards to help firms shift to sustainable development practices and technologies
- support corporate social responsibility
- integrate sustainable development principles and practices into Industry Canada's internal decision-making processes

A complete summary of the main issues and recommendations is available at strategis.gc.ca/sd.

2) Industry Canada's SDS IV Performance Measurement Workshop

Industry Canada held an SDS IV Performance Measurement Workshop on June 20, 2006, to assist Industry Canada officers who were preparing action items to:

- learn about the challenges of performance measurement and reporting, particularly attribution and contribution analysis
- learn how they can use a performance story chart and other performance measurement tools and practices to more effectively tell their respective SDS action item's performance story
- work through a number of SDS IV action item examples in breakout groups

3) Atlantic Canada Stakeholder Consultations

In a collaborative effort, similar to that undertaken for SDS III, Industry Canada partnered with the Atlantic Canada Opportunities Agency, Environment Canada, Natural Resources Canada and Public Works and Government Services Canada to conduct coordinated SDS IV consultations in Atlantic Canada. Stakeholders from industry, academia and NGOs took part in four consultation sessions organized in St. John's, Halifax, Moncton and Charlottetown from May 5 to 8, 2006. Key themes identified at the consultations included:

- **Education, skills and training:** Identify and communicate how sustainable development can contribute to firm profitability and enhance global competitiveness, empower communities and build sustainable community–business clusters
- **Infrastructure:** Invest in more energy-efficient mass transit
- **Energy:** Reduce reliance on fossil fuels through more government R&D in renewable energy
- **Sustainable development leadership:** Ensure procurement opportunities for SMEs, and promote higher building standards and integrated land management
- **Innovation, productivity and competitiveness:** Create eco-efficiency incentives and programs for business; create a climate that attracts business opportunities; implement tax credits to encourage sustainable development initiatives; create a centre of expertise to assist with the development of new technologies, training and R&D; add value to existing natural resource sectors through technology development, process changes and use of best practices; and create economic development opportunities to encourage recruitment and retention of skilled labour and young workers

A report on the consultations, including the issues, challenges and opportunities for action identified, is available at strategis.gc.ca/sd.