MID-TERM EVALUATION STUDY OF INDUSTRY CANADA'S SUSTAINABLE DEVELOPMENT STRATEGY, 2000-2003

Final Report

Audit and Evaluation Branch

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Canada

Table of Contents

NOTE:

Minor editorial changes were made to this report in order to prepare the document for posting to the Internet (including removal of standard Appendices such as list of interviewees and questionnaires). Readers wishing to receive a copy of the original version of this report should contact the Audit and Evaluation Branch at Industry Canada.

Executive Summary

Sustainable development (SD) has been integrated into both the *Department of Industry Canada Act* and the *Auditor General Act*. Industry Canada's next strategy must be tabled in Parliament by the end of 2003. This evaluation reviews the mid-term results achieved by SDS II during the period from January 2001 to the present.

This mid-term evaluation is but one of the activities towards developing the department's next Sustainable Development Strategy (SDS III). This report provides a review of the results achieved to date by the department through the implementation of SDS II, what aspects have changed since SDS I, and the lessons learned from SDS II. This evaluation also identifies implementation questions that need to be addressed for the next phase of sustainable development initiatives by Industry Canada. An update on the accomplishments of the previous SDS I is also included in the study report.

OBJECTIVES OF SDS II

In its second Sustainable Development Strategy (SDS II), Industry Canada was committed to promoting sustainable development as part of its mandate to create the foundation for a more productive, competitive, knowledge-based economy.

Industry Canada's SDS II consisted of three objectives that focus on eco-efficiency, environmental technologies, and decision making:

- *Eco-efficiency*: Enhance the capacity of Canadians, industries and firms to develop and use eco-efficient practices, tools, technologies and products that contribute to increased productivity and environmental performance.
- *Environmental technologies*: Facilitate the development and diffusion of environmental and enabling technologies that produce long-term economic and environmental benefits.
- *Decision-making:* Improve the integration of sustainable development objectives into the decision-making and delivery of departmental policies, plans, programs and operations.

EVALUATION QUESTIONS

The specific focus of the mid-term evaluation was on the following key research questions:

- How relevant are the SDS II objectives and priorities to Industry Canada, and to Industry Canada's stakeholders' needs?
- Is SDS II consistent with the department's mandate? How do the SDS II action items relate to IC's strategic objectives?

- What is the relevance of IC's SDS II initiatives for the government-wide sustainable development objectives?

- How successful has SDS II been in achieving its objectives (including productivity through eco-efficiency, environmental technologies, and decision making objectives)?

- Have the intended near-term sustainable development impacts of SDS II been achieved? What were the unintended impacts from SDS II, if any?

- To what extent has SDS II achieved sustainable development results relating to the department's strategic objectives (i.e., innovation, connectedness, marketplace, investment, and trade)?

- What are the lessons learned, based on factors that might have facilitated and/or impeded the implementation of SDS II, which could be useful to SDS III?

FINDINGS

Update on Achievements of SDS I

- Most officials interviewed from several branches of IC felt that they had achieved the SDS I targets set out for their various SD-related projects. Generally, they also felt that the department was heading in the right direction in terms of integrating SD into operations, and in addressing SD related issues.

- The final status of SDS I action items, is as follows: 12 action items were completed according to plan, 15 were completed with add-ons and/or rolled into SDS II for follow ups, and 1 was discontinued.

- **Fostering a marketplace climate—**Most interviewees thought that IC made good progress from 1998 to 2000 in addressing its marketplace climate objective—i.e., marketplace rules and services; reasoned advocacy to shape SD policy; and consumer choice and the marketplace. Since 2000 the department is generally seen as heading in the right direction, but may have lagged in the advocacy and consumer elements of this objective.

- **Enhancing the ability of Canadian firms to develop and use innovative technologies—**This can be described as a forte of Industry Canada. Many SD initiatives that are likely to have a more direct impact on innovative technologies (particularly at the early development stages) are in place. The ability of the department to measure the commercial potential of innovative technologies supported by IC, however, has not progressed sufficiently. It is therefore near impossible to attribute long-term results to IC's activities contributing to innovative technologies, beyond anecdotal evidence.

- **Encouraging trade and investment—**The update on this particular objective of SDS I is that Industry Canada has made progress in continuing to support the Canadian government's efforts to encourage the export of Canadian knowledge, products, practices and technologies that further SD objectives. However, the general view is that this progress is slow, notwithstanding some very successful initiatives, including Sustainable Cities Initiative, Canada's participation in the World Summit on Sustainable Development, and Trade Team Canada Environment activities.

- **Continuing to improve the capacity of Industry Canada—**SDS I was seen to be relevant and consistent with the departmental mandate and goals. As such SDS I was able to establish a strong foundation for SDS II, to implement action items focused on entrenching SD within the department. The capacity of IC to manage and deliver departmental policies, programs and operations that contribute to SD, by all measures, seems to have been quite successful. However, where SDS I appears to have fallen short is in fostering a clear image of the long-term outcomes that the strategy is meant to achieve. This same challenge was carried over into SDS II.

Relevance of SDS II

- All Industry Canada's SD initiatives appear relevant to the department and to government-wide SD goals, as described in *A Guide to Green Government* and in various *Speeches from the Throne* (1999, 2001, 2002) and the government's Budget statements (e.g., most recent Budget 2003), and as expressed in the *Leaders Forum* on SD in 2000 (e.g., "productivity through eco-efficiency" is a co-lead with Natural Resources Canada and Environment Canada).

- To date, the department continues to make the strongest link with sustainable development through its innovation and marketplace objectives. However, the department's contribution to SD has become relatively more diversified in scope across the department and across IC's other strategic objectives, compared to SDS I.

- The Commissioner of the Environment and Sustainable Development, in her 2002 report to the House of Commons, stated that: "The government has yet to provide a clear picture of what a sustainable Canada would look like 20 years from now." In the absence of such a government-wide vision, it makes it difficult for departments such as Industry Canada to develop long-term SD goals. Nonetheless, IC has identified its long-term, as well as near-term, intended results that are relevant within a broad government framework, and linked these to specific SDS II action items. Notwithstanding, there is a lack of clarity about the path towards achieving the long-term goals. Most of the SDS II action items are actually short or near-term in nature, with a three-year time span, since the Minister of Industry and the department are required to update the strategy every three years. Yet long-term thinking for the next generation of Canadians is the essence of SD.

Results of SDS II: Productivity Through Eco-Efficiency

- Nineteen action items fall under Industry Canada's productivity through eco-efficiency objective. Two action items are related to "capacity building in R&D and

skills". Twelve action items fall under "applying tools in the marketplace", while five action items relate to "measuring success".

- IC has undertaken a broad range of activities in order to address the productivity through eco-efficiency objective. Out of 19 action items in this area, the department has fulfilled or exceeded requirements connected to 13 items, and is making progress towards completing 3. Another 3 action items are reported to be in a planning or early implementation phase and may need to be rolled into SDS III.

- Key mid-term results related to the eco-efficiency objective are listed below. Other results are discussed in the report.

  - Three new relevant Networks of Centres of Excellence were announced and have been making progress in designing and implementing SD related research programs.

  - A multi-stakeholder steering committee at Canadian Standards Association was mandated to expand the use of environmental standards and eco-efficiency tools to SMEs.

  - Various online self-assessment tools for SD performance were completed and are being used.

  - An online registration tool and database was developed to enable companies to register and update their climate change technology showcasing information.

  - Two reports were completed on environmental information for consumers.

  - A biotechnology web site was set up to promote awareness of applications of biotechnology for SD.

  - Several reports were completed and widely circulated on corporate social responsibility and on corporate sustainability reporting.

Results of SDS II: Environmental Technologies

- Nineteen action items fall under Industry Canada's environmental technologies objective. Six action items are related to "promoting technology innovation". Seven action items fall under "encouraging new approaches", and six action items relate to "working together through partnerships".

- IC has undertaken a broad range of activities in order to address the environmental technologies objective. Out of 19 action items, the department has fulfilled or exceeded requirements connected to 8 items, and is making progress towards completing 8. Another 3 action items are reported to be in an early implementation phase and may need to be rolled into SDS III.

- Key mid-term results related to the environmental technologies objective are listed below. Other results are discussed in the report.

- Technology Partnerships Canada (TPC) has invested considerably in SD oriented projects.

- IC worked with NRCan and EC to get the Sustainable Development Technology Fund up and running.

- Industry Canada continues to support the Canada Foundation for Innovation, which also funds SD-related projects.

- Several technology roadmaps have been completed which have led to collaborative actions by many industry stakeholders.

- Several reports on international business development competitiveness were completed and posted on the web.

- Canadian firms are benefiting from the development of international markets from Trade Team Canada Environment.

- The Sustainable Cities Initiative successfully evolved from a pilot project to a $9 million program covering 17 cities.

- Three technology roadmaps were launched for climate change.

- Two studies on fuel cell technology were completed in support of this industry.

- A vision was advanced for a bioproducts and biobased economy in Canada.

- Partnerships with leading industry firms and science-based departments and agencies were established for developing an innovation strategy and action plan for bioproducts and bioprocesses.

- A Canadian environmental solutions web site was launched.

Results of SDS II: Decision Making

- Twenty action items fall under Industry Canada's "integration of SD into decision making" objective. Ten action items are related to "improving planning practices". Six action items fall under "enhancing implementation of sustainable development", while three action items relate to "strengthening consideration of SD in evaluation".

- IC has undertaken a broad range of activities in order to address the integration of SD into decision making. Out of 20 action items, the department has fulfilled or exceeded requirements connected to 13 items, and is making progress towards completing 5. Another 2 action items are reported to be in a planning or early implementation phase and may need to be rolled into SDS III.

- Key mid-term results related to the decision making objective are listed below. Other results are discussed in the report.

- Elevation in the quality of discussion of SD and environmental impact issues at the Senior Policy Committee of IC.

- Improved Strategic Environmental Assessments (SEAs) were implemented in numerous submissions and Memoranda to Cabinet.

- Project environmental assessments were improved at IC through training, improved networking with other departments, and sharing best practices.

- IC has been proactive in advancing integration of social, economic and environmental elements of SD in several national and international fora.

- SD was successfully integrated into the Report on Plans and Priorities (RPP).

- Three ADM champions were appointed for outreach to industry, greening operations, and SDS implementation and monitoring.

- A robust eco-efficiency web site was launched.

- The department continues to move forward on greening its operations.

- Several training and awareness initiatives on SD were delivered to IC staff.

- SD considerations have been included in RMAFs and in evaluation studies, and an SDS II evaluation framework was completed.

LESSONS LEARNED AND RECOMMENDATIONS

The following lessons learned from the SDS II experience can help the department build on and improve the process for SDS III, so that government requirements can be met and SD can continue to become an integral component of departmental culture. Recommendations associated with the lessons learned are also presented.

Making progress—Industry Canada has considerably progressed since SDS I in advancing its sustainable development agenda. SDS II had 58 SD action items, compared to SDS I's 28. This in itself suggests an increase in SD activity in the department. However, it also means that there is a requirement to consolidate the various initiatives underway around key objectives of the strategy. While SDS II represents progress in establishing a strategic "top-down" view for SD at IC, the process is still seen by some as a fragmented "bottom-up" collection of projects/action items. A balance between the "top-down" and "bottom-up" perspectives would be useful, not only in terms of how these fit together on paper (i.e., in the strategic document itself), but also in the implementation process and in the reporting on results. ***Recommendation:*** *Industry Canada should consolidate the various action items that emerge for SDS III into no more than 10 key outcome areas that are associated with the objectives of the strategy. Implementation and reporting on results should be structured around these key outcome areas. While SDS II had 9 key outcome areas, the implementation and reporting structure of the strategy was focused on the 58 action items, and not around the 9 key outcome areas.*

Evaluation framework—While SDS II included a set of performance indicators associated with many of the SD action items, the challenge of measuring results of SD initiatives, in relation to the overall long-term objectives of the strategy, is still not sufficiently addressed. It should be noted that all other departments of government similarly face the same measurement challenges. The SDS I mid-term evaluation study recommended that the department carry out an evaluation framework to inform the process for measuring results – and to help develop evaluation indicators. This was not done until late in the implementation phase of SDS II. ***Recommendation:*** *An SDS III evaluation framework study, consistent with guidelines of Treasury Board Secretariat, should be undertaken concurrently with the planning process for developing the next strategy. This will contribute to addressing the issue of appropriate indicators for near-term and long-term analysis of results.*

Decision making—While Industry Canada has successfully integrated SD into its decision making process, a focus on integration continues to be necessary into and throughout the next three-year period. While the quality of discussion and expertise about SD has increased in the department since the first generation of SD strategies, the challenges are ongoing and the need to remain vigilant is still present. ***Recommendation:*** *Integration of SD in the decision making process remains an important priority for Industry Canada, to maintain a high profile and a focus on this endeavour. SDS III should retain Decision Making as one of its strategic objectives.*

Scope and flexibility of the strategy—SDS II, as a strategic process and implementation framework, did not capture all SD-related work underway in the department. Some SD related initiatives and opportunities emerged after the strategy was implemented (e.g., activities of the Manufacturing Industries Branch regarding "lean manufacturing"). ***Recommendation:*** *While flexibility was demonstrated in the implementation of SDS II, in that it was possible to add new action items to the original 57,[1] the department should review the plan on an annual basis and adjust actions and deliverables as required, to meet key outcomes and objectives of the strategy.*

Monitoring and reporting—Compared to SDS I, SDS II monitoring and reporting have solicited praise, and hardly any complaints during the consultation process for this study. However, improvements are needed for capturing changes and additions to original plans and action items, and for tracking outcomes. ***Recommendation:*** *For SDS III, individual SD project leaders should consider compiling performance information consistent with the RMAF framework of Treasury Board Secretariat, on an ongoing basis as part of the SD monitoring and reporting system. In this respect, guidance from TBS and/or the office of the Commissioner of the Environment and Sustainable Development would be welcome. Nonetheless, the department needs to develop its own measurement system for SDS III.*

Resources—IC managers and staff consider the lack of funding as a significant constraint to SD implementation, generally resulting in a cautious approach in

[1] For example, the "take-back" initiative for recycling computers and telecommunications equipment was added as a new action item.

committing to relevant projects, with some exceptions. ***Recommendation:*** *The strategic planning process for SDS III should explore the potential of allocating funds for projects under an SDS III appropriation framework.*

Internal partnerships—The department has become smarter (more effective) in collaborating and partnering with other government departments, provinces, municipalities, and private industry, non-profit organizations and associations – for SD-related activities in general. However, from the consultation process for this study, there are perceived opportunities to improve internal partnerships, within the department, for SD initiatives. The Industry Canada SDS group could encourage internal partnerships with/between branches within the department. These internal partnerships could create synergies in expertise and knowledge and bring about cooperation towards more effective delivery of SD outcomes and objectives. Intradepartmental working groups could be used more effectively to capitalize on these synergies. ***Recommendation:*** *During the planning process for SDS III, the department should consider how to engender intradepartmental cooperation towards achieving the desired SD outcomes.*

Delivery instruments—The department has made good use of the diverse tools available to it to achieve SDS II results. However, in the next SD strategy, the challenge for IC will be to select the appropriate instruments that best achieve the intended outcomes of the strategy, in a suitable timeframe that is consistent to a government-wide schedule for achieving results. This challenge can be mitigated only to the extent that consensus emerges on a timeframe for results, with an accompanying clarity of vision expressed at a government-wide level, as well as within IC. ***Recommendation:*** *Regardless of this challenge, it is important for the department to assess and select the most effective tools at its disposal that best achieve intended results, in a timely fashion.*

Results—SDS I, SDS II, and SDS III activities are expected to yield societal results in the long-term (e.g., 5-10 years hence, and beyond). However, there is a need to start planning early for a full-scale evaluation (in 2006-2007), to measure the cumulative impacts of SDS I, SDS II and SDS III. ***Recommendation:*** *To address the requirement of the Commissioner of the Environment and Sustainable Development, for a cumulative review in 2007 of ten years of SD and SDS monitoring work, Industry Canada should prepare to present a comprehensive evaluation of the cumulative results of its SDS strategies.*

Parallel strategies—While SDS II has been incorporated in the department's overall strategic framework (as expressed in Industry Canada's *Making a Difference* document), the profile of SD within IC's Innovation Strategy document – *Achieving Excellence* – is less evident. The Innovation Strategy perhaps as a necessity seems to exist as a separate framework for action, but does not in itself explicitly link-up with SDS II. ***Recommendation:*** *To engender a more robust role for SD within the department, it would be useful if the next strategy (SDS III) would be substantially more referenced within parallel strategies of the department—such as the Innovation Strategy.*

I. Introduction

This report presents the results of a mid-term evaluation of Industry Canada's second Sustainable Development Strategy (SDS II), 2000-2003. Industry Canada commissioned KPMG Consulting to undertake this evaluation study of SDS II.[2]

1.1 Context

Definition of sustainable development—The World Commission on Environment and Development (the Brundtland Commission) defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". This definition provides a framework for the integration of environmental policies and development strategies. The Government of Canada is committed to sustainable development as a way to improve our quality of life. Sustainable development has been integrated into the *Auditor General Act* and federal departments are required to produce sustainable development strategies every three years.

Sustainable development strategies in the federal government—In 1997, 28 federal government departments and agencies tabled their first sustainable development strategies in the House of Commons. The general objective of these strategies was to operationalize sustainable development, to move it from a concept to a practice by articulating what needed to be done by federal government departments.

The various federal government departments' SD initiatives have to satisfy a number of government-wide strategic directions, including those articulated in the government's *A Guide to Green Government* and in various government Throne Speeches.

Industry Canada's sustainable development strategies—According to the *Department of Industry Act*, one of the duties of the Minister of Industry is to "strengthen the national economy and *promote sustainable development* …". Industry Canada is now in the process of developing its third Sustainable Development Strategy (SDS III), 2003-2006.

- SDS I (December 1997) was designed to build sustainable development into departmental activities and to be effectively aligned with the objectives of the department's overall business plan. SDS I focused on learning and discovery.
- SDS II (December 2000) is presently in progress, and aims to lead, form effective partnerships and be more proactive in select strategic areas where significant results are possible. This strategy focuses on leadership, partnership, being more proactive and focused, and placing more emphasis on strengthening management practices.

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2 This report also provides an update on SDS I objectives achieved, and a validation of findings from the previous evaluation of SDS I: *Mid-Term Evaluation Study of Industry Canada's Sustainable Development Strategy (SDS I)*, prepared by Hussein Rostum (et al), KPMG Consulting, for Industry Canada, March 2000.

- SDS III is in a developmental phase and will be tabled in the House of Commons in December 2003.

Mid-term evaluation of SDS II—This mid-term evaluation study is part of a process for helping to develop the next sustainable development strategy of the department (SDS III) for 2003-2006. Two other studies have also been commissioned as part of this process: an "internal issues scan" (based on assessments of managers and professionals within the department), and an "external issues scan" (based on assessments of stakeholders and clients of the department). Both the internal and external issues scans are aimed at identifying relevant sustainable development issues that the department could address over the next three years.

An evaluation framework of SDS I was conducted in 1998 and a mid-term evaluation of SDS I was completed in March 2000. Similarly an evaluation framework for SDS II was prepared as a precursor to this current (2003) mid-term evaluation of SDS II.

1.2 Objectives and Key Evaluation Questions

Objective—The objective of this mid-term evaluation of SDS II is to identify and review:

- SDS I results not covered in the previous SDS I evaluation (March 2000);
- rationale, delivery, progress, and early impacts of SDS II;
- factors that facilitated or impeded the delivery of SDS II;
- lessons learned/improvements of SDS II; and
- future needs/directions for SDS III.

This objective and the related research questions identified below respond to requirements of Treasury Board Secretariat guidelines for program evaluations, and to Canadian public sector accountability practices.

Key research questions—The specific focus of the mid-term evaluation is on the following key research questions:

- How relevant are the SDS II objectives and priorities to Industry Canada, and to Industry Canada's stakeholders' needs?

- Is SDS II consistent with the department's mandate? How do the SDS II action items relate to IC's strategic objectives?

- What is the relevance of IC's SDS II initiatives for the government-wide sustainable development objectives?

- How successful has SDS II been in achieving its objectives (including productivity through eco-efficiency, environmental technologies, and decision making objectives)?

- Have the intended near-term sustainable development impacts of SDS II been achieved? What were the unintended impacts from SDS II, if any?

- To what extent has SDS II achieved sustainable development results relating to the department's strategic objectives (i.e., innovation, connectedness, marketplace, investment, and trade)?

- What are the lessons learned, based on factors that might have facilitated and/or impeded the implementation of SDS II, which could be useful to SDS III?

1.3 Approach

Document review—As part of the approach for this mid-term evaluation, a review of relevant documents was done. Documents reviewed include previous departmental evaluations of sustainable development initiatives, progress reports, internal and external issues scans, SDS I and SDS II strategy documents, relevant reports of the Commissioner of the Environment and Sustainable Development, IC senior management presentations and memos on departmental SD activities, and ad hoc staff communications. Appendix A provides a list of references reviewed for this study.

Consultations—In addition, the approach for this study involved a series of interviews with 37 management and professional staff members of Industry Canada plus 5 departmental clients and industry representatives (see the list of persons consulted in Appendix B and the interview guide in Appendix C). In addition, relevant results of interviews conducted as part of the "internal issues scan" (50 interviews) were blended with the mid-term evaluation interviews, particularly in the context of "lessons learned" from SDS II.

Review of SDS II departmental monitoring and reporting database—In order to assess the status of various SDS II action items, various progress reports and related information included in the SDS II departmental monitoring and reporting database were examined. The nature and extent of data gaps were identified, and monitoring and reporting results were assessed.

Analysis and reporting of results—The information and data gathered was analyzed in the context of each of the research questions identified above. Evaluation indicators for these research questions were developed in the SDS II evaluation framework report prepared as a precursor to this study.[3] These indicators form a basis for analysis and reporting on results.

[3] *Industry Canada's Sustainable Development Strategy, 2000-2003: Performance Measurement Framework*, prepared by Hussein Rostum, KPMG Consulting, for Audit and Evaluation Branch, Industry Canada, March 2003.

1.4 Limitation

The scope of this study is limited to a review of the near-term results achieved to date by SDS II, and to identifying lessons learned and implementation challenges that need to be addressed for the next phase of IC's sustainable development initiatives. As a formative, mid-term evaluation this study does not tackle issues related to long-term impacts of Industry Canada's SDS II, and the ultimate achievement of its SD vision.

Several of the intended results of the strategy are long-term in nature and have not yet matured to yield measurable returns. For example, identifying how the strategy impacts on "the distribution of costs and benefits among generations" (one of the intended results of the strategy) can only be credibly measured in years to come.

II. Profiles of Industry Canada's SDS I and SDS II

This chapter of the report presents profiles of SDS I and of SDS II, and provides a logic model for SDS II. The logic model depicts plausible linkages between the activities of SDS II and the anticipated results of the strategy. An update on objectives achieved by SDS I, and a validation of findings of the previous mid-term evaluation (completed in March 2000),[4] are also highlighted in this chapter.

2.1 Profile of SDS I and Update on Achievement of Objectives

2.1.1 Profile of SDS I

SDS I was the first attempt to integrate Sustainable Development into the department's policy and program activities. It was intended to "create a solid platform on which to build an increasingly comprehensive departmental sustainable development agenda and to incorporate practical, incremental steps to achieve it".[5]

Four main strategic objectives were identified for SDS I:

- to *foster a marketplace* climate in Canada that promotes sustainable development;
- to *enhance the ability* of Canadian firms to develop and use innovative technologies and tools which contribute to sustainable development;
- to *encourage trade and investment flows* which contribute to sustainable development in Canada and abroad; and
- to *continue to improve the capacity* of Industry Canada to manage and deliver departmental policies, programs and operations which contribute to sustainable development.

Within these areas, the department established nine priorities as depicted graphically in Exhibit 1, and originally identified 27 discrete initiatives[6] to incrementally integrate sustainable development into departmental activities. An update on accomplishments of SDS I is presented in the next section (2.1.2).

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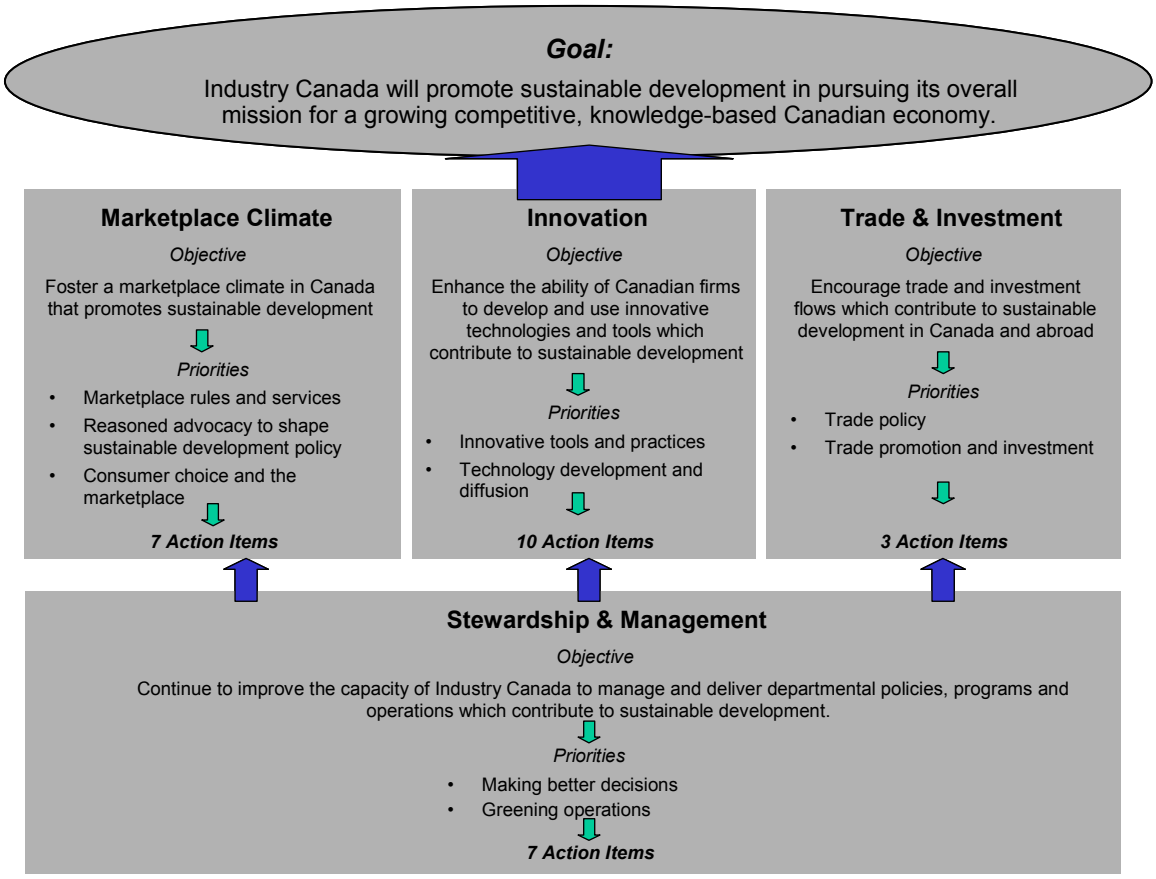
4 *Mid-Term Evaluation Study of Industry Canada's Sustainable Development Strategy (SDS I)*, prepared by Hussein Rostum (et al), KPMG Consulting, for Industry Canada, March 2000.

5 *Sustainable Development Strategy, 1997-2000*, Industry Canada, page 1.

6 An additional item was added after developing the Strategy, for a final total of 28 action items for SDS I.

Exhibit 1: Context of SDS I



2.1.2 Update on Achievement of Objectives of SDS I

As part of this current mid-term evaluation of SDS II, interviewees were asked the following questions to update and validate the results of the previous mid-term evaluation of SDS I.

- **Success of SDS I—**How successful were you in achieving your branch's SDS I objectives? How successful has the department been in achieving its overall SDS I objectives?
- **Results of SDS I—**What were the results achieved by SDS I?
- **Reporting on SDS I—**How successful has Industry Canada been in capturing (identifying/measuring) these results, and reporting on them (e.g., in evaluation and/or other reports)?

Success of SDS I—SDS I is seen by most IC persons interviewed for this study as a successful learning experience for the department. The mid-term evaluation study of SDS I reported on the results of the strategy as of March 2000. At that time, out of 28 action items only 5 had been completed and 19 were still ongoing or near completion.

The final status of SDS I action items, is as follows: 12 action items were completed according to plan, 15 were completed with add-ons and/or rolled into SDS II for follow ups, and 1 was discontinued.

Most officials interviewed from several branches of IC felt that they had achieved the SDS I targets set out for their various SD-related projects. Generally, they also felt that the department was heading in the right direction in terms of integrating SD into operations, and in addressing SD related issues. But it is also commonly viewed that IC's role is as an enabler or facilitator of change, with program and policy tools that indirectly influence behaviour, and therefore it is extremely challenging to attribute measurable impacts to relevant IC activities. To most interviewees it is not at all clear how much success can be attributed to the department in achieving the overall SDS I objectives.

Results of SDS I—Results reported in the SDS I mid-term evaluation study focused on the extent to which short and near-term objectives of the strategy were achieved, to the year 2000. The three-year period of SDS I is generally perceived as a limited timeframe for maturation of SD objectives. Hence, the reporting on results by the evaluation study focused on project deliverables, outputs and near or intermediate outcomes of the strategy.

Many of the initiatives of SDS I rolled into SDS II. Approximately 55 percent of SDS I initiatives formed a basis for follow-up action items in SDS II. This is largely a testament to the reality that the government's sustainable development agenda is essentially a long-term endeavour, and clearly does not come in neat "three-year packages." The Commissioner of the Environment and Sustainable Development reported in her 2002 report on the state of SD strategies in the federal government that:

> "Our audit found that most of the actions in the strategies are short-term; few extend beyond 2004. This is partly a consequence of the Auditor General Act itself. Since ministers and departments are required to update their strategies every three years, the strategies have tended to focus on a limited three-year horizon."[7]

Having said this, it is therefore deemed necessary to develop a long-term strategic perspective, with a notion of how to achieve long-term SD objectives through a chain of results occurring from successes of short and near-term deliverables.

Notwithstanding, interviewees for this current mid-term evaluation of SDS II, were able to provide some update on the achievements of SDS I in relation to that strategy's objectives. Exhibit 2 provides a summary of interviewee responses.

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7 *Report of the Commissioner of the Environment and Sustainable Development to the House of Commons*, Office of the Auditor General, 2002, Section 5.62, page 18.

Exhibit 2: SDS I Mid-term Evaluation Update

SDS I Strategic Objectives	Update (Highlights from Interviewee Responses)
Fostering a marketplace climate in Canada that promotes sustainable development.	Most interviewees thought that IC made good progress from 1998 to 2000 in addressing its marketplace climate objective—i.e., marketplace rules and services; reasoned advocacy to shape SD policy; and consumer choice and the marketplace. Since 2000 the department is generally seen as heading in the right direction, but may have lagged in the advocacy and consumer elements of this objective.
Enhance the ability of Canadian firms to develop and use innovative technologies and tools which contribute to sustainable development.	This can be described as a forte of Industry Canada. Many SD initiatives that are likely to have a more direct impact on innovative technologies (particularly at the early development stages) are in place. The ability of the department to measure the commercial potential of innovative technologies supported by IC, however, has not progressed sufficiently. It is therefore near impossible to attribute long-term results to IC's activities contributing to innovative technologies, beyond anecdotal evidence.
E*ncouraging trade and investment flows* which contribute to sustainable development in Canada and abroad.	The update on this particular objective of SDS I is that Industry Canada has made progress in continuing to support the Canadian government's efforts to encourage the export of Canadian knowledge, products, practices and technologies that further SD objectives. However, the general view is that this progress is slow, notwithstanding some very successful initiatives, including Sustainable Cities Initiative, Canada's participation in the World Summit on Sustainable Development, and Trade Team Canada Environment activities.
C*ontinuing to improve the capacity* of Industry Canada to manage and deliver departmental policies, programs and operations which contribute to sustainable development.	SDS I was seen to be relevant and consistent with the departmental mandate and goals. As such SDS I was able to establish a strong foundation for SDS II, to implement action items focused on entrenching SD within the department. The capacity of IC to manage and deliver departmental policies, programs and operations that contribute to SD, by all measures, seems to have been quite successful. However, where SDS I appears to have fallen short is in fostering a clear image of the long-term outcomes that the strategy is meant to achieve. This same challenge was carried over into SDS II.

Reporting on SDS I—The March 2000 mid-term evaluation of SDS I was part of a process for helping to develop SDS II. Two other studies were also commissioned by Industry Canada as part of this process: an "internal issues scan" (based on assessments of managers and professionals within the department), and an "external issues scan" (based on assessments of stakeholders and clients of the department). Both these issues scans helped identify key SD opportunities that the department targeted for SDS II.

Most interviewees agreed that the SDS I mid-term evaluation and issues-scans were instrumental in helping develop components of SDS II. In fact, key recommendations from these projects were adopted for the implementation of SDS II. For example, the department adopted the recommendations on key sustainable development issues that SDS II should focus on.

In addition, findings and recommendations regarding the reporting mechanisms of SDS I were instrumental in developing a new reporting scheme for SDS II. The current mid-term evaluation of SDS II found that the new reporting scheme, with its online features, has been successful in that it simplified the reporting process while emerging as a more effective SD management tool for Industry Canada.

2.2 Profile of SDS II and Logic Model

2.2.1 Profile of SDS II

In its second Sustainable Development Strategy (SDS II), Industry Canada was committed to promoting sustainable development as part of its mandate to create the foundation for a more productive, competitive, knowledge-based economy.

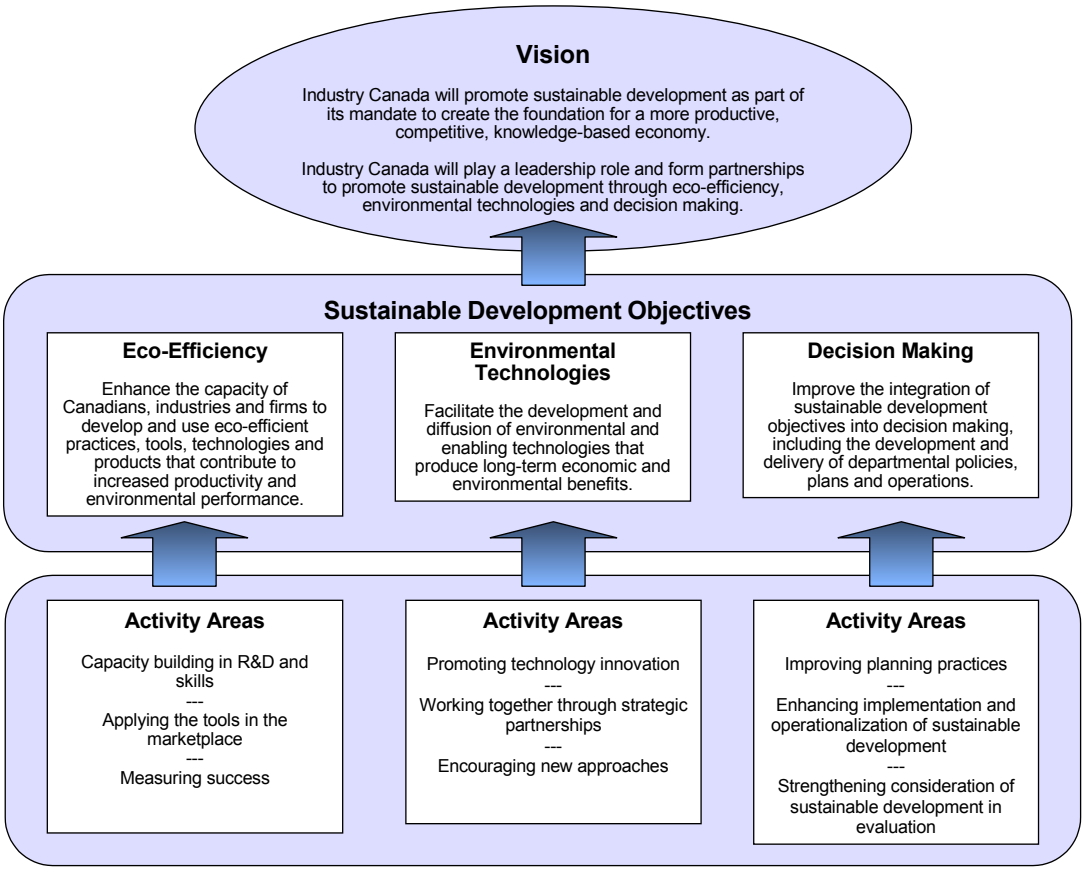
Industry Canada's SDS II consists of three objectives that focus on eco-efficiency, environmental technologies, and decision making. Exhibit 3 identifies the architecture of the strategy, including the vision, objectives and targeted areas for action.

The overall vision of SDS II is aligned with Industry Canada's mandate to create the foundation for a more productive, competitive, knowledge-based economy. The following are the overall strategic objectives of SDS II:

- *Eco-efficiency*: Enhance the capacity of Canadians, industries and firms to develop and use eco-efficient practices, tools, technologies and products that contribute to increased productivity and environmental performance.
- *Environmental technologies*: Facilitate the development and diffusion of environmental and enabling technologies that produce long-term economic and environmental benefits.
- *Decision-making*: Improve the integration of sustainable development objectives into the decision-making and delivery of departmental policies, plans, programs and operations.

Within these strategic objectives, the department established nine priority activity areas (see Exhibit 3) to play a leadership role and promote sustainable development. Action items linked to each priority area will be discussed in the following chapters of this report.

Exhibit 3: Context of SDS II



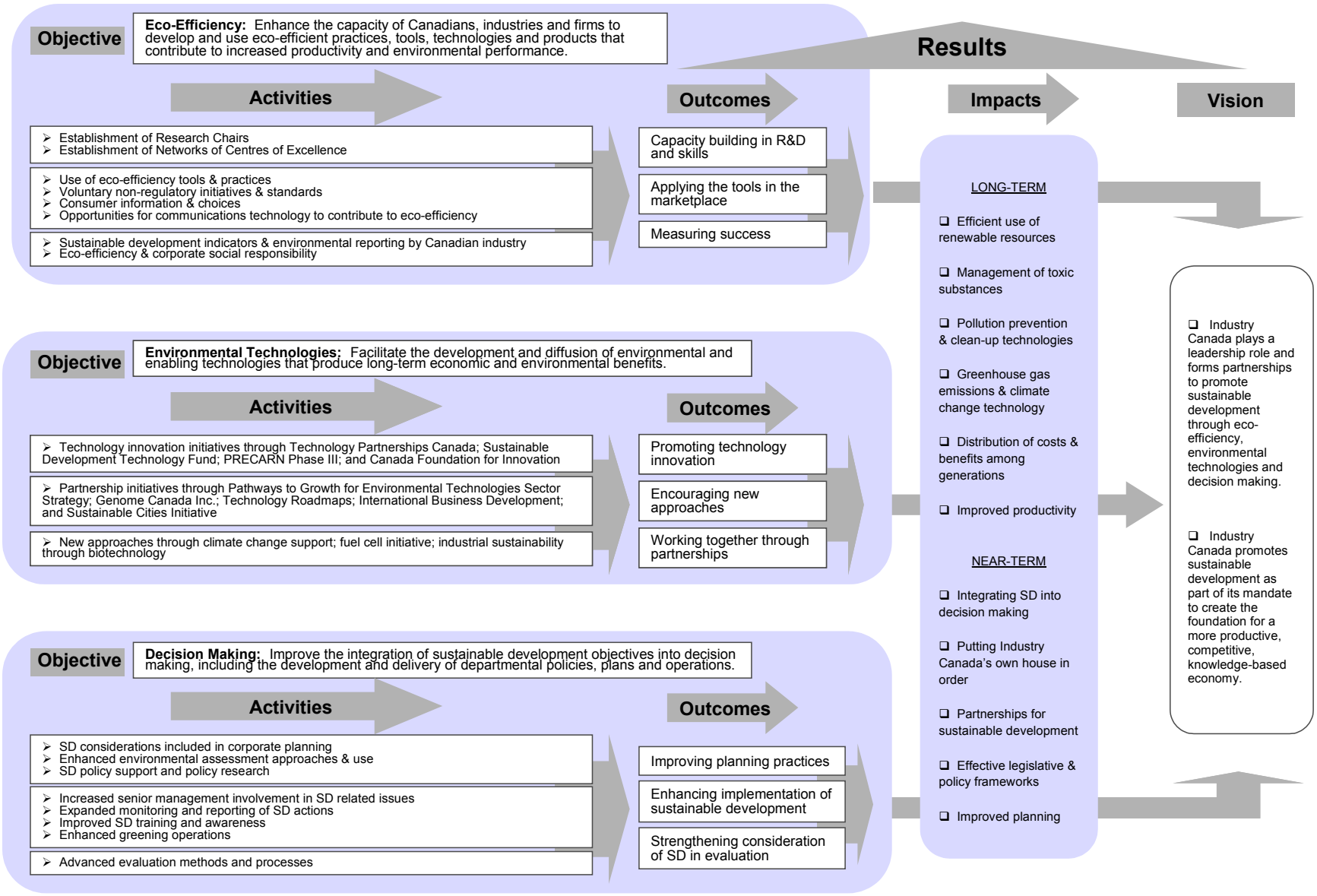
2.2.2 Logic Model and Results Chain

The linkages between Industry Canada's SDS II activities and the results from these activities are identified in Exhibit 4. In order to focus on relevant issues for the evaluation, it is helpful to first identify the logical linkages and between priority activity areas and results associated with the deployment of SDS II.[8]

Exhibit 4 shows how the activities of SDS II are expected to lead to the accomplishment of the Strategy's objectives. This "logic model" depicts the results chain expected to occur, and links the strategy's major activities to the expected outcomes and impacts, and to the ultimate achievement of the vision. The causal relationships shown in Exhibit 4 are plausible enough to allow for a meaningful evaluation to be done.

8 The results-based depiction of SDS II in Exhibit 4 is consistent with Treasury Board of Canada's *Guide for the Development of Results-based Management and Accountability Frameworks*. It is also consistent with "Exhibit 5.3: The results chain: From activities to outcomes", in *Report of the Commissioner of the Environment and Sustainable Development to the House of Commons*, Office of the Auditor General, Ottawa, 2002, page 9.

Exhibit 4: Results Chain and Logic Chart for Industry Canada's SDS II



III. Relevance of SDS II

The findings of the evaluation of SDS II on the issue of relevance of the strategy are presented in this chapter of the report. Results regarding the following specific research questions are described:

- How relevant are the SDS II objectives and priorities to Industry Canada, and to Industry Canada's stakeholders' needs? (Addressed in Section 3.1.)
- Is SDS II consistent with the department's mandate? How do the SDS II action items relate to IC's strategic objectives? (Addressed in Section 3.2.)
- What is the relevance of IC's SDS II initiatives for the government-wide sustainable development objectives? (Addressed in Section 3.3.)

3.1 Continuing Relevance of SDS II Initiatives

While Industry Canada is not an environmental department per se, its mandate is compatible with the goals of sustainable development. Sustainable development is not just the protection of the environment. It includes the efficient and environmentally responsible use of all of our scarce resources—natural, human and economic. The sustainable development equation includes the social, economic and environmental areas that lead to an improved quality of life and wellbeing. Environmental protection need not be viewed as a barrier to economic development. Rather, a healthy economy stimulates job growth and wealth necessary to foster research and development and to make investments necessary to ensure a healthy environment. Consequently, Industry Canada and sustainable development are compatible, and the department has an important role in ensuring that the government contributes to balanced decision making among economic, environmental and social dimensions of SD. IC's mandate, and its policies and programs, and SD initiatives can be mutually reinforcing.

Industry Canada's sustainable development strategy for 2000-2003 (SDS II) initially presented 57 relevant action items. An additional initiative concerning a take-back program for recycling computers and telecommunications equipment was later added to the list of action items. All Industry Canada's SD initiatives appear relevant to the department and to government-wide SD goals, as described in *A Guide to Green Government* and in various *Throne Speeches* (1999, 2001, 2002) and the government's Budget statements (e.g., most recent Budget 2003).

The continued relevance of the SD initiatives, from the standpoint of the department, are contingent on several factors including:

- *Extent of integration* of initiative into the department's overall mandate and strategic directions.
- *Relative impacts* of the initiative on sustainable development.
- *Extent of completion* of each initiative.

- *Long-term versus near-term focus* of each of the initiatives.
- *Partnerships* with external stakeholders and other federal government departments.

The extent of integration of SD initiatives into the department's overall mandate and strategic directions—SDS II initiatives are well integrated into the departments mandate and are linked to its strategic directions. The initiatives evolved through a process of internal consultation with IC staff and external consultations with stakeholders. An iterative process involving background research and discussions between IC management and staff, other government partners, and stakeholders led to the various targeted action items that make up the work agenda of SDS II.

Relative impacts of the initiatives for sustainable development—The initiatives associated with SDS II provide relatively clear and relevant action plans that are intended to deliver specific results, and meaningful impacts, for sustainable development. Many of these impacts are *long-term* in nature and can only be measured over a long period of time. However, some *near-term* results are discussed in Chapters IV of this report. These near-term results demonstrate that IC has produced relevant outcomes towards the government's overall SD agenda (e.g., SD information dissemination, basic R&D, technology demonstrations, trade promotion, and effectively working with partners and stakeholders to facilitate the development of new eco-efficient technologies).

The extent of completion of each initiative—Chapter IV in this report shows that the majority of the 58 initiatives of SDS II are completed or in mid to late implementation stages. However, there are some initiatives that have not only met but also exceeded their objectives as stated in the SD action plans of the department (e.g., R&D investments in innovation technologies, sustainable cities, strategic environmental assessments, corporate sustainability reporting). Ongoing work from these action items is likely to overflow to the next sustainable development strategy (SDS III). Since tabling SDS II there has been one new action item added to the strategy (i.e., a take-back program for recycling computer and telecommunications equipment).

The long-term versus short-term focus of each of the initiatives—SD initiatives with long-term, sustained impacts potentially produce more relevant or significant results for Canada's future than those activities with a narrow or short-term perspective. A recurring point, raised by a few persons interviewed for this study, is that Industry Canada is often only able to focus on short-term results, because policy and program tools available to the department are generally limited with indirect effects — e.g., mechanisms for information dissemination, technology roadmaps, training initiatives, guidelines and application tools, memoranda of understanding, voluntary compliance methods, moral suasion). For continued relevance and impact of IC's sustainable development initiatives, the department should aim at creative uses of available tools and a long-term orientation in planning (i.e., beyond a three-year term).

Partnerships with external stakeholders and other federal government departments—For continued relevance, Industry Canada's sustainable development initiatives need to be broad-based and include action plans that involve external stakeholders and partnerships with other federal government departments. Industry Canada's SDS II initiatives involved a variety of partnering relationships required for the implementation of action items. Chapter

IV, Section 4.2 outlines the extent of partnership arrangements that IC successfully developed during SDS II. In several of the initiatives, partnerships involved teamwork and a coordinated and strategic approach to developing relationships with stakeholders and clients in implementing specific areas of shared responsibility for sustainable development. Continued relevance of the SD initiatives will be contingent on the extent to which initiatives are externally focused, broad-based and involve active projects with the private sector and other federal departments.

An opportunity for establishing greater consistency between an SD strategy and the needs of IC's stakeholders is to increase the level of meaningful interaction with the private sector throughout the strategy period. The first strategy (SDS I) established an interactive consultation process with external stakeholders early in the design stage, with marginal interactions during the lifetime of the strategy. Industry Canada has improved the current level of external stakeholder integration by establishing consultative processes and mechanisms throughout the life of the strategy. The department's interaction and teamwork with the private sector has been an ongoing participatory process. This appears to have had positive spin-off benefits for sustainable development activities and initiatives outside the department's sphere. Examples of this, related to specific action items, are presented in Chapter IV.

3.2 Consistency of SDS II with IC's Mandate

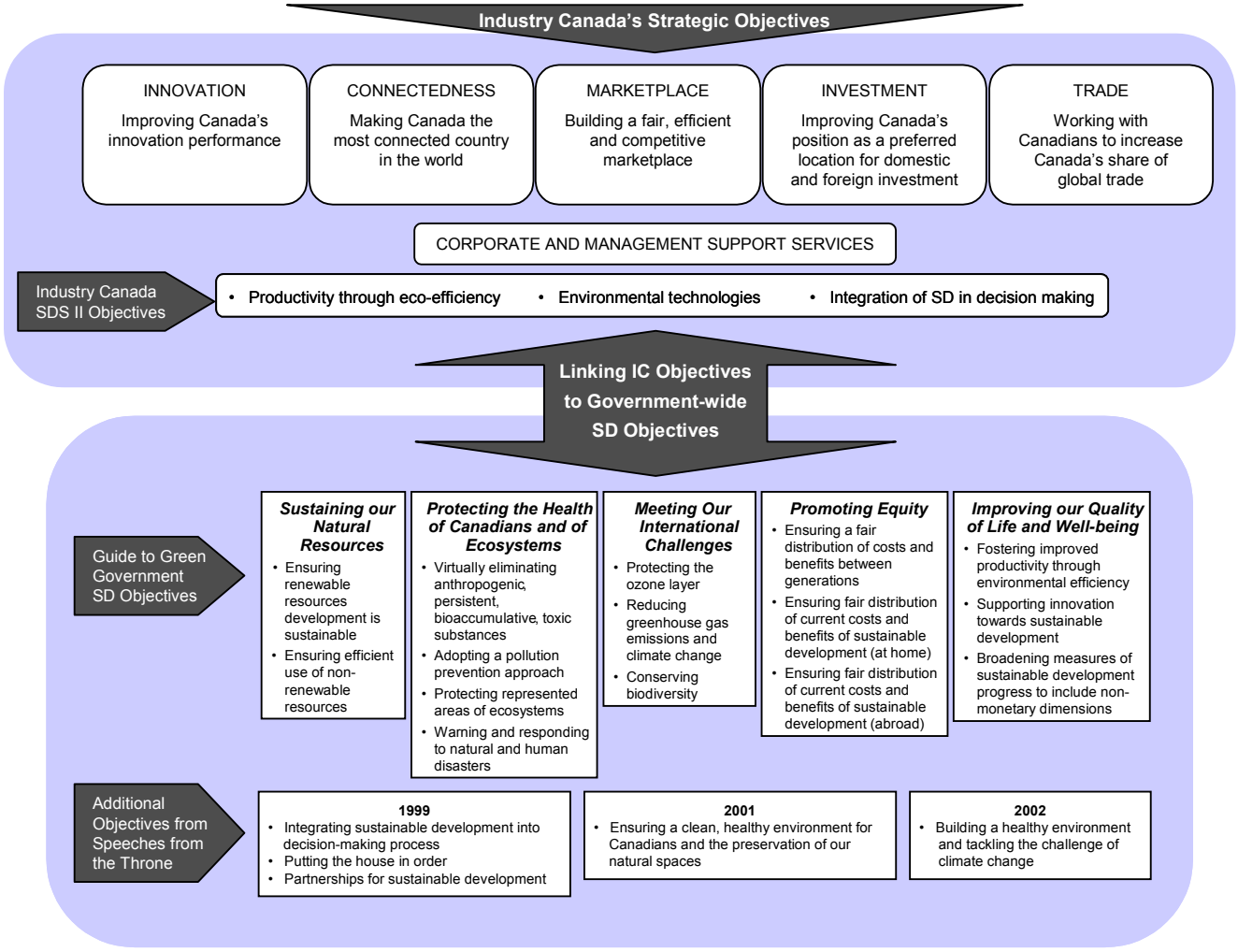
In general, SDS II is consistent and compatible with Industry Canada's mandate – to help make Canadians more productive and competitive in the global, knowledge-based economy. Exhibit 1 in Chapter I depicted logical relationships between the SDS II priorities and the overall vision of the department. Exhibit 5, in the following page, provides a more detailed context for SDS II that reflects Industry Canada's specific strategic directions as they were presented in the departments strategy, *Making a Difference: Our Priorities for 2002-2003*. Exhibit 5 also provides the overall context for the government-wide SD framework as identified in *A Guide to Green Government* and in various *Speeches from the Throne (1999, 2001, 2002)*.

Often sustainable development is defined and understood solely in environmental terms with little emphasis made to the efficient and environmentally responsible use of economic resources, which also lead to an improved quality of life and wellbeing. Although Industry Canada's mandate is not explicitly linked to protecting the environment, the department does have the opportunity to highlight the economic benefits of sustainable development by underscoring the links between SD and economic growth.

To date, the department continues to make the strongest link with sustainable development through its innovation objective. However, the department's contribution to SD has become relatively more diversified in scope across the department and across IC's other strategic objectives, compared to SDS I. See Chapter IV, Section 4.5, for the distribution of SD action items as they relate to each of IC's strategic objectives (i.e., Innovation, Connectedness, Marketplace, Investment and Trade), across branches within the department.

In SDS II, Industry Canada has successfully integrated sustainable development with its corporate objectives, and senior management added SD to IC's Priorities Chart, to reflect its importance as a major cross-cutting policy issue. To deliver on its mandate, the department took the required steps to explicitly link sustainable development with relevant programs and policies. Previously, in an evaluation of the SDS I strategy, one stakeholder had commented that "sustainable development was simply an adjunct to the departmental mandate and that the SD strategy itself was a corporate statement with tactical items". To meet its sustainable development goals, Industry Canada in SDS II managed to align environmental and economic considerations, and factored these into its operational activities, especially those with near-term impacts and orientation.

Exhibit 5: Linking Industry Canada's Strategic Objectives to Government-wide SD Objectives



3.3 Tying IC's SD Initiatives to Government SD Priorities

Advancing the federal government's sustainable development agenda has been a learning experience throughout SDS I and SDS II, and continues to be a challenge for all departments in the federal government. Exhibit 5, in the previous page, depicted Industry Canada's approach to addressing government-wide objectives as stated in *A Guide to Green Government* and in various *Throne Speeches* (1999, 2001, 2002), and as emerged through the Leaders Forum on SD in 2000 (e.g., "productivity through eco-efficiency" is a co-lead with Natural Resources Canada and Environment Canada). Clearly, the three key objectives of SDS II relate to the overall SD government framework. The progress of IC in achieving these objectives is discussed in Chapter IV.

It is now commonly recognized that there is need for a clear Government-of-Canada perspective to facilitate greater co-ordination and coherence in the federal voice on sustainable development. The Commissioner of the Environment and Sustainable Development, in her 2002 report to the House of Commons, stated that: "The government has yet to provide a clear picture of what a sustainable Canada would look like 20 years from now."[9]

In the absence of such a government-wide vision, it makes it difficult for departments such as Industry Canada to develop long-term SD goals. Nonetheless, IC has identified its long-term, as well as near-term, intended results that are relevant within a broad government framework, and linked these to specific SDS II action items.[10] Industry Canada needs flexibility to add or delete action items as required within each three-year planning period, as requirements change from year to year. Notwithstanding, there is a lack of clarity about the path towards achieving the long-term goals. Most of the action items are actually short or near-term in nature, with a three-year time span, since the Minister of Industry and the department are required to update the strategy every three years. Yet long-term thinking for the next generation of Canadians is the essence of SD.

Bearing this in mind, there are many relevant and continuing opportunities for Industry Canada and other departments to work together and share responsibility for moving the sustainable development agenda forward. Consultations conducted for this study, with departmental and external stakeholders, highlighted some key potential opportunities to further tie Industry Canada's initiatives to government-wide sustainable development priorities. Exhibit 6 lists some of these opportunities. The internal issues scan undertaken by Industry Canada, as part of the process for developing SDS III, discusses a number of other opportunities that can be a basis for discussions on collaborations with other government departments on SD-related initiatives.[11]

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9 *Report of the Commissioner of the Environment and Sustainable Development to the House of Commons*, Office of the Auditor General, 2002, Section 5.65, page 19.

10 Table 2 on page 51 of Industry Canada's *Sustainable Development Strategy, 2000-2003*, links each action item to the intended results.

11 See *Internal Issues Scan for Industry Canada's Sustainable Development Strategy (SDS III), 2003-2006*, prepared by Hussein Rostum, KPMG Consulting, for Industry Canada, April 2003.

Exhibit 6: Some Continuing SD Opportunities for Industry Canada

Relevant Government-wide Objectives	Continuing SD Opportunities for Industry Canada
Ensuring resources development is sustainable	Voluntary approaches taken by industry sectors to achieve sustainable codes of practice
Supporting innovation towards sustainable development	Commercial benefits of innovative technologies that mitigate the effects of climate change
Integrating SD into decision making process	Environmental reporting practices of companies in Canada
Fostering improved productivity through environmental efficiency	Alignment of environmental concerns with economic impacts of SD
Broadening government measures of sustainable development	Study of impacts of fiscal and tax incentives for SD performance on firms
Integrating SD into decision making process	Effective legislative and policy frameworks
Improving our quality of life and wellbeing	Promoting awareness of SD among consumers
Supporting innovation towards sustainable development	Support to small and medium-sized enterprises in understanding and adopting SD innovative technologies and practices

IV. Achieving Objectives and Near-term Impacts

The findings of the evaluation of SDS II on the issue of achieving objectives and near-term impacts of the strategy are presented in this chapter of the report. Results regarding the following specific research questions are described:

- To what extent did SDS II achieve its productivity through eco-efficiency objective? (Addressed in Section 4.1.)
- To what extent did SDS II achieve its environmental technologies objective? (Addressed in Section 4.2.)
- To what extent did SDS II achieve its decision making objective? (Addressed in Section 4.3.)
- Have the intended near-term sustainable development impacts of SDS II been achieved? What were the unintended impacts from SDS II, if any? (Addressed in Section 4.4.)
- To what extent has SDS II achieved sustainable development results relating to the department's strategic objectives (i.e., innovation, connectedness, marketplace, investment and trade)? (Addressed in Section 4.5.)

The next three sections of this chapter begin by setting out the SD priorities associated with IC's SD objectives. These sections continue by listing relevant SD action items in table form. These tables summarize and comment on key activities the department has undertaken in order to complete each action item. Finally, these sections discuss whether or not IC is on track to meet the targets it set in SDS II. Next this chapter addresses the issue of delivery instruments and the IC context of SDS II as it relates to the department's strategic objectives.

The chapter is based on information and perceptions gathered from the consultation process and from information found in SDS II progress reports, and other relevant documents in IC's SD files—including management summary reports, presentations, briefings and notes from IC's SD Steering Committee meetings. The analysis is evidence-based and is supported by a due diligence research process covering all the relevant information available to the study team at the time of preparing the evaluation report.

4.1 Productivity Through Eco-Efficiency

In SDS II, IC set out a productivity objective to "enhance the capacity of Canadians, industries and firms to develop and use eco-efficient practices, tools, technologies and products that contribute to increased productivity and environmental performance." The department defined the following three priority areas that relate to this objective.

- **Capacity building in R&D and skills—**Strengthening R&D and skills in the area of eco-efficiency involves advanced applied research, education, technologies and practices.

- **Applying the tools in the marketplace—**This involves actively encouraging the transfer, adoption and implementation of eco-efficient production tools, practices, processes and technologies at the firm level to achieve measurable improvements in productivity and environmental performance.

- **Measuring success—**Performance measurement and benchmarking are critical to assessing Canada's competitive position internationally. These activities are also critical to determining whether the implementation of eco-efficiency initiatives have, in fact, improved firm-level productivity performance.

Nineteen action items fall under Industry Canada's productivity through eco-efficiency objective. Two action items (action items 1 and 2) are related to "capacity building in R&D and skills". Twelve action items (action items 3 to 14) fall under "applying tools in the marketplace", while five action items (action items 15 to 19) relate to "measuring success".

Exhibit 7 summarizes and comments on IC's progress in completing the productivity through eco-efficiency action items.

As Exhibit 7 shows, IC has undertaken a broad range of activities in order to complete the productivity through eco-efficiency objective. Out of 19 action items, the department has fulfilled or exceeded requirements connected to 13 items, and is making progress towards completing 3. Another 3 action items are reported to be in a planning or early implementation phase and may need to be rolled into SDS III.

Key mid-term results include:

- Three new relevant Networks of Centres of Excellence were announced and have been making progress in designing and implementing SD related research programs.

- A multi-stakeholder steering committee at Canadian Standards Association was mandated to expand the use of environmental standards and eco-efficiency tools to SMEs.

- Various online self-assessment tools for SD performance were completed and are being used.

- An online registration tool and database was developed to enable companies to register and update their climate change technology showcasing information.

- Two reports were completed on environmental information for consumers.

- A biotechnology web site was set up to promote awareness of applications of biotechnology for SD.

- Several reports were completed and widely circulated on corporate social responsibility and on corporate sustainability reporting.

The bullets above only highlight some key results. The discussion that follows expands on the status of the action items and justifies whether or not the department is on track to meet the SD objectives it set out in SDS II.

Exhibit 7: SDS II Objective Achievement—Productivity Through Eco-Efficiency

Priorities and Action Items	Achievements	Comments [12]
Priority Area: Capacity building in R&D and skills		
1. Research Chairs	At least 10 initiatives supported, and a number of university chairs established (through the Canada Research Chairs and NSERC's Chairs in Environmental Design Engineering Program)	Completed. Research work ongoing.
2. New Networks of Centres of Excellence	Three new Networks of Centres of Excellence were announced in 2001 and have been making progress in designing and implementing their research programs. These networks focus on "The Automobile in the 21st Century"; "Stem Cell Genomics and Therapeutics"; and "The Canadian Water Network". The number of projects and researchers in these NCE programs is growing.	Late implementation.[13] Capacity building in R&D is ongoing within NCE's established.
Priority Area: Applying the tools in the marketplace		
3. Expanding the use of environmental standards & eco-efficiency tools	Multi-stakeholder steering committee at Canadian Standards Association mandated to expand the use of environmental standards and eco-efficiency tools in SMEs. Worked with Federation of Canadian Municipalities on various activities to increase the credibility and adoption of environmental management standards.	Late Implementation. A number of well-attended workshops and forums conducted.
4. Assisting SMEs to improve their performance through use of eco-efficient practices, tools and technologies	Online self-assessment tools developed for SMEs to improve competitiveness and environmental performance. Several eco-efficiency workshops held for federal and provincial government and industry staff. Partnership initiatives with stakeholders set up to develop eco-efficiency tools.	Completed. Good participation by stakeholders in development of online tools.
5. Developing and implementing a voluntary program (ARET2) – replacement for ARET (Accelerated Reduction/Elimination of Toxics program	No voluntary agreements under ARET2 have been developed to date. The automotive parts manufacturers, however, have recently signed an MOU with EC and IC and might be a candidate to enter into an environmental performance agreement under ARET2.	Planning. Industry hesitating in making commitments.
6. Promoting biodiversity stewardship	Five industry sectors formally participate in this initiative with mining, forestry and electricity generation being the most active. DFO has signed an MOU with the Canadian Electricity Association that is concerned with management of fish habitat by companies.	Early implementation. Funding needed for this initiative to succeed.
7. Information products to industry and the public on eco-efficient practices and technologies – such as CES, BEPO, and EIVO	Online registration tool and database developed to enable companies to register and update their climate change technology showcasing information. Cross-country recruitment drive was initiated to identify climate change companies.	Mid-point. Maintaining database will require ongoing resources.
8. Group of online information services	Partnerships expected on this initiative with EC, DFAIT, NRCan and other departments, as well as with industry associations, private sector and environmental organizations. Newsletter created that supports the development of environmental policy in Canada.	Mid-point. Circulation of newsletter unknown.
9. Providing environmental information through the Web	A web site including information and links to information on pollution prevention, eco-efficiency, corporate stewardship and other environmental management initiatives has been set up. This web site averages about 10,000 accesses per month.	Late implementation. Web site continues to be expanded and refined.
10. Development of voluntary environmental agreements	One voluntary environmental agreement completed (a CCPA MOU). Five other initiatives underway with stakeholders and partners in manufacturing, plastics, oil refining, information technologies, wastewater treatment.	Late implementation. Discussions with stakeholders continuing.
11. Support to Consumer Association of Canada to assess credibility of consumer information on sustainability	Report prepared by Consumers Association of Canada on monitoring consumer information on environmental labels and claims. Project funded under Office of Consumer Affairs' "arms-length" Contributions Program.	Completed. Report widely circulated.

[12] Comments about status of projects are as indicated in the SDS II Progress Reports, September 30, 2002 – i.e., latest reports available at the time of preparing this document.

[13] "Late implementation" means that the initiative is nearing completion or in its final phases.

Exhibit 7: SDS II Objective Achievement—Productivity Through Eco-Efficiency (continued)

Priorities and Action Items	Achievements	Comments
12. Support to Pollution Probe to study environmental information	Report prepared by Pollution Probe on environmental information relating to drinking water, product labels and environmental certification programs, and indoor environments. Assessed trends on how information is provided to public, and how public uses this information. Project funded under Office of Consumer Affairs' "arms-length" Contributions Program.	Late implementation. Circulation unknown.
13. Biotechnology web site	Sustainability through biotechnology web site set up to promote awareness of application of biotechnology for sustainable development. Collaborated with Pollution Probe and Environment Canada to produce a "primer on renewable energy" – excerpts included in web site. Excerpts from OECD document also included in web site.	Completed. Worked with several partners to develop web site.
14. Eco-efficiency and connectedness	Initial discussions with some stakeholders have taken place to produce a study of the environmental impacts of the Internet economy.	Planning. New lead officer required.
Priority Area: Measuring success		
15. Eco-efficiency and SD indicators through collaboration with NRTEE	Collaborated with National Roundtable on the Environment and the Economy (NRTEE). Provided advice and information to build a Canadian Information System for the Environment and SD indicators. Supported the Policy Research Initiative's SD and governance project work.	Completed. IC played a support role.
16. Corporate social responsibility international fora work	Guidelines for CSR developed by OECD have been promoted actively in partnership with several other stakeholders. Participated in revision of OECD Guidelines for Multinational Enterprises.	Late implementation. IC raised awareness of CSR.
17. Best practices in corporate social responsibility	Report on "Corporate Social Responsibility: Reporting Practices of Canadian Organizations" completed by Conference Board of Canada. Posted on SD section of IC's web site. Participated in advisory committee for the "Canadian Corporate Sustainability Reporting Benchmark Survey".	Completed. Best practices compiled and documented.
18. Corporate social responsibility indicator development	Five reports completed to date support the development of CSR indicators and/or explore the links of these indicators to eco-efficiency. Other pertinent studies on CSR are underway.	Mid-point. Wide range of stake-holders included in studies.
19. Survey on industry reporting of SD	Two studies completed: "Canadian Corporate Sustainability Reporting Benchmarking Survey", "Stepping Forward - Corporate Sustainability Reporting in Canada". Provided financial support and participated in the Summit on Corporate Environmental and Sustainability Reporting. Worked in partnership with stakeholders and other government departments (e.g., EC, NRCan) to examine federal role in promoting corporate sustainability reporting. Awareness information package on corporate sustainability reporting disseminated. Discussions with partners to develop a corporate sustainability reporting web site. Feasibility study with partners on corporate sustainability reporting toolkits. Completed report: "Corporate Sustainability Reporting: Adding Business Value – Questionnaire Results."	Late implementation. Several information products and studies completed, exceeding expectations. Additional deliverables under consideration.

Capacity building in R&D and skills—The demonstration and the diffusion of innovative and tested technologies can play an important role in addressing resource efficiency and making Canadian industry more productive. Industry Canada chose to address this issue by supporting R&D and skills in institutions and industry to build up technical expertise and expand the application of eco-efficient practices, tools and technologies. Accordingly, three new Networks of Centres of Excellence were announced in 2001 and have been making progress in designing and implementing SD-related science and technology research projects. These networks focus on: "The Automobile in the 21st Century"; "Stem Cell Genomics and Therapeutics"; and "The Canadian Water Network". The number of projects and researchers that work on SD-related R&D is growing at these NCEs. In addition, Industry Canada has worked through the Canada Research Chairs program and NSERC's Chairs in Environmental Design Engineering Program to establish several chairs at Canadian universities. These programs are on track in helping to create an R&D environment in Canada that is effective and conducive to building capacity in the area of eco-efficiency, involving advanced applied research, education, and technology practices. However, the extent to which SDS II has impacted on increasing the people with the skills and knowledge to make innovation and eco-efficiency happen in Canada has yet to be measured by Industry Canada.

Applying the tools in the marketplace—Research undertaken by Industry Canada indicates that significant gains in cost savings, productivity and environmental performance, could be realized if eco-efficiency were transferred to the many firms that have not yet recognized the concept. Industry Canada's efforts in this area involve empowering business and consumers with the knowledge required to make eco-efficiency a part of daily life and common business practice. The modernization of business management approaches, including voluntary partnerships, are important because they encourage companies to go beyond compliance with the law, and they provide opportunities to find new and better ways of doing business in a profitable and sustainable manner.

IC activities that are on track in this area include: a voluntary environmental agreement (MOU) with the Canadian Chemical Producers' Association (CCPA), and five other similar initiatives underway with stakeholders and partners in manufacturing, plastics, oil refining, information technologies, wastewater treatment. Also, two projects funded under the Office of Consumer Affairs' "arms-length" Contributions Program were completed: to monitor consumer information on environmental labels and claims, and to assess trends on how environmental information is provided to the public and how the public uses this information. A web site on sustainability through biotechnology was set up to promote awareness of applications of biotechnology for SD, and a primer on renewable energy use was completed successfully in collaboration with Pollution Probe and Environment Canada.

SDS II has seen a steady participation by stakeholders in development of SD tools in collaboration with Industry Canada. For example, online-self-assessment tools were developed for SMEs to improve competitiveness and environmental performance; several eco-efficiency workshops were held for federal and provincial government and industry staff to discuss and review tools; and an online registration tool and database was developed to enable companies to register and update their climate change technology showcasing information.

Notwithstanding this activity, there has been no assessment by Industry Canada on how effective these tools have been in furthering the objective of achieving productivity through eco-efficiency.

Measuring success—Several information products and studies have been completed, exceeding expectations in this area of SDS II. Additional deliverables continue to be considered by IC on how to measure success in the firm-level implementation of eco-efficiency and productivity performance.

Relevant activities by IC include: collaborating with National Roundtable on the Environment and the Economy (NRTEE) to produce eco-efficiency and SD indicators; participating in the revision of the OECD guidelines for Corporate Social Responsibility and promoting these guidelines in Canada; preparing five reports on the development of CSR indicators and identifying the links of these indicators to successful eco-efficiency practices; identifying appropriate benchmarks for corporate reporting on SD practices; and collaborating to develop toolkits for corporate sustainability reporting. The extent to which the deliverables from these activities have been disseminated among partners and stakeholders in the public and private sectors is unknown, and the impacts they have had in improving productivity through eco-efficiency, at least in the near-term, are not readily measurable.

4.2 Environmental Technologies

In SDS II, IC set out an environmental technologies objective to "facilitate the development and diffusion of environmental and enabling technologies that produce long-term economic and environmental benefits." The department defined the following three priority areas that relate to this objective.

- **Promoting technology innovation—**initiatives to promote technology innovation include state-of-the-art research, development and demonstration of environmental and enabling technologies.

- **Encouraging new approaches—**The complexity of environmental issues such as climate change requires innovative approaches to the application of environmental technologies.

- **Working together through partnerships—**The strategic engagement and awareness raising among client sectors is essential to ensure that Canadian environmental technologies can effectively respond to the evolving needs of the target clients.

Nineteen action items fall under Industry Canada's environmental technologies objective. Six action items (action items 20 to 25) are related to "promoting technology innovation". Seven action items (action items 26 to 32) fall under "encouraging new approaches", and six action items (action items 33 to 38) relate to "working together through partnerships".

Exhibit 8 summarizes and comments on IC's progress in completing the environmental technologies action items.

As Exhibit 8 shows, IC has undertaken a broad range of activities in order to complete the environmental technologies objective. Out of 19 action items, the department has fulfilled or exceeded requirements connected to 8 items, and is making progress towards completing 8. Another 3 action items are reported to be in an early implementation phase and may need to be rolled into SDS III.

Key mid-term results include:

- Technology Partnerships Canada (TPC) has invested considerably in SD oriented projects.
- IC worked with NRCan and EC to get the Sustainable Development Technology Fund up and running.
- Industry Canada continues to support the Canada Foundation for Innovation, which also funds SD-related projects.
- Several technology roadmaps have been completed which have led to collaborative actions by many industry stakeholders.
- Several reports on international business development competitiveness completed and posted on the web.
- Canadian firms are benefiting from the development of international markets from Trade Team Canada Environment.
- The Sustainable Cities Initiative successfully evolved from a pilot project to a $9 million program covering 17 cities.
- Three technology roadmaps launched for climate change.
- Two studies on fuel cell technology completed in support of this industry.
- A vision was advanced for a bioproducts and biobased economy in Canada.
- Partnerships with leading industry firms and science-based departments and agencies established for developing an innovation strategy and action plan for bioproducts and bioprocesses.
- A Canadian environmental solutions web site was launched.

The bullets above only highlight key results. The discussion that follows expands on the status of the action items and justifies whether or not the department is on track to meet the SD objectives it set out in SDS II.

Exhibit 8: SDS II Objective Achievement—Environmental Technologies

Priorities and Action Items	Achievements	Comments
Priority Area: Promoting technology innovation		
20. TPC: investing in innovative technologies	TPC invests in projects that have the potential to contribute to SD and eco-efficiency. TPC has invested a total of $305.5 million in 19 projects that contribute to SD under the SDS II plan. These projects are expected to leverage about $1,146,581,395 in private sector investments.	Mid-point. Significant investments in innovation technologies.
21. Sustainable Development Technology Fund	Worked with NRCan and EC and supported the establishment of SDTF. NRCan is the lead department responsible for SDTF. SDTF is now up and running.	Completed. IC's involvement in SDTF has ceased.
22. PRECARN Phase III	PRECARN typically approves six major projects per annum that support the achievement of sustainable development objectives. Projects include the Intelligent Control Systems for Fuel Cell and Natural Gas Vehicles; Intelligent Bleaching System; and the Enhanced Urban Signal Control Package. PRECARN supports research, using applications of advanced information technology in such areas as advanced manufacturing, mining, environmental cleanup.	Completed. PRECARN is working with many government and industry partners.
23. Canada Foundation for Innovation	IC continues to support CFI's work to enhance Canada's research capacity in the areas of health, the environment, science, and engineering. Also helps sustain the research infrastructure needs of Canada Research Chairs—with the target of 2,000 Canada Research Chairs by 2004-2005. Since December 2000, CFI has funded 52 projects in fields such as hydrology, ecology, oceanography, soil science, plant and tree biology.	Mid-point. Support by IC to CFI is arms length.
24. Recycling computers and telecommunications equipment	This initiative provides support to information and communications technologies (ICT) industries to develop a take-back program for ICT equipment. National steering committee established, consisting of federal, provincial, and municipal stakeholders, to support the development of this initiative. Broadly based industry committee has also been established to develop and implement a roadmap. Studies and reports have been initiated to support progress on this program.	Early implementation. This is a recent initiative introduced in SDS II.
25. Encourage firms to submit to SDTF, CFI, SCI, TPC	Encouraged Canadian firms to submit for project funding from these programs. Several fuel cells technology firms in Canada, funded through these programs, announced the development and commercialization of fuel cells technology and alliances with auto assemblers. Progress on performance indicators slow as fuel cells and related infrastructure not commercialized.	Late implementation. Funding from these programs is ongoing.
Priority Area: Encouraging new approaches		
26. Pathways to Growth for Environmental Technologies Sector Strategy	This initiative seeks to align, enhance and undertake actions to develop the environmental industry. Pathways consultative process delayed due to other priorities (IC's Innovation Strategy).	Early implementation. Consultations with stakeholders delayed.
27. Genome Canada	IC is responsible for ensuring Genome Canada meets the commitments of its Funding Agreement, and managing the overall relationship between Genome Canada and the federal government. IC worked closely with Genome Canada, both in its oversight function and in its role as a partner in reaching the objectives related to the industrial development of the genomics and proteomics sector.	Mid-point. IC is engaged with Genome Canada in oversight activities.
28. Technology roadmaps for innovative technologies	IC acts as a catalyst and project facilitator for developing and implementing technology roadmaps. Roadmap completed on Medical Imaging with over 20 technologies identified that could improve patient care and enhance global competitiveness of Canadian medical sector. Roadmap on Intelligent Buildings completed—an outstanding example of a collaborative partnership between the public and private sectors. TRMs lead to collaborative actions by many stakeholders in an industry sector.	Mid-point. Other TRMs are being developed in SD areas (e.g., biopharmaceuticals, oil sands, clean coal, CO2 sequestration)

Exhibit 8: SDS II Objective Achievement—Environmental Technologies (continued)

Priorities and Action Items	Achievements	Comments
29. Advance Canada's leadership role in international venues	Aimed at participation in international venues such as UNEP and OECD. Working group on bioproducts established under the Canadian Biotechnology Strategy—to play a leadership role in international fora. Report entitled "The Application of Biotechnology to Industrial Sustainability" developed containing case studies to assess bio/environmental technologies for SD. Supportive policy coordination and development activities.	Completed. International presence and collaborations ensued.
30. International business development competitiveness analysis	A series of reports on "international competitiveness analysis" aims at benchmarking public support for Canadian environmental technologies against that of major competitors. Two reports prepared on official investment finance (posted on the Internet) and on official development assistance, respectively, with a focus on the environmental sector. A financing entity has been structured within the Canada-Africa Investment Fund, to enhance competitiveness of Canadian firms and to stimulate exports and ensuing jobs.	Early implementation. Other reports to be developed on trade promotion, basic R&D, and commercialization and technology demonstration.
31. Trade Team Canada Environment (TTCE)	Canadian firms are benefiting from the development of international markets from TTCE initiatives. TTCE initiatives such as technology demonstrations, training and exchange programs, MOUs, and/or trade shows in countries such as Cuba, Mexico, Egypt, Brazil, Chile, Poland, Argentina, and others, have benefited numerous Canadian firms.	Late implementation. TTCE is a proactive multi-stakeholder mechanism promoting Canadian SD technologies & expertise.
32. Sustainable Cities Initiative	Extended market access for domestic and global market opportunities. Successful initiative in extending program to a total of 7 cities during the SDS II period. Over 600 Canadian firms, NGOs and government organizations participated in the SCI pilot.	Completed. Evolved from a pilot to a $9 million program – 17 cities.
Priority Area: Working together through partnerships		
33. Climate Change Office	Support for technology demonstration through Technology Early Action Measures (TEAM) Three technology roadmaps launched. Successfully negotiated flexibility in Kyoto Protocol. Strengthened sensitivity of impact analysis to industry circumstances. Supply chain management initiative launched. Worked with partners to deliver industry benchmarks	Mid-point. Focus on analysis of potential measures to help reduce industrial emissions of greenhouse gases.
34. Support for fuel cell development	Commissioned studies on: "The Canadian Fuel Cell Industry: A Capabilities Guide" and "A Fiscal Framework for a Hydrogen Economy". Working on developing technology roadmap for the fuel cells industry.	Mid-point. Lack of hydrogen infra-structure. Progress is slow.
35. Encourage GoC to purchase fuel cell products	Several assemblers announced availability of fuel cells vehicles in 2003. GM announced that it would be first assembler to produce 1 million fuel cell vehicles.	Late implementation. Lack of infrastructure is a barrier. Progress is slow.
36. Innovation strategy and action plan for bioproducts and bioprocesses	Supported studies on economic opportunities and moving to a bio-based economy. Multi-department working group established for this initiative. A vision advanced for a bioproducts and a biobased economy in Canada. Other work includes initiatives with partners on technology roadmap, NCEs, and innovation clusters.	Mid-point. Partnerships with leading industry firms and science-based departments and agencies.
37. Regional workshops for opportunities to advance biotechnologies	Supported AAFC to run consultations with provincial stakeholders on the "life sciences economy". Seven workshops held on advancing the growth of biotechnologies to advance SD. Input from workshops to go into Canada's Innovation Strategy.	Completed. Feedback from consult-ations fed into policy work.
38. Canadian biotechnology solutions for the environment CD-ROM and web site	Canadian Environmental Solutions web site established—about 7,000 accesses per month. Undertaking technology roadmap for bio-fuel cells.	Mid-point. Outreach activity ongoing.

Promoting technology innovation—Promoting innovation is critical to meeting environmental obligations such as the Kyoto Protocol and to enhancing productivity and the environmental health of Canadians. Initiatives to promote technology innovation include state-of-the-art research, development and demonstration of environmental and enabling technologies. All of these programs involve partnerships. For example, Technology Partnerships Canada invests in projects that have the potential to contribute to SD and eco-efficiency. TPC is reported to have invested a total of $305.5 million in 19 projects that contribute to SD under the SDS II plan. These projects are expected to leverage about $1.15 billion in private sector investments.

Other major funding programs that Industry Canada is linked with, that are now up and running and that fund SD-related projects, are the Sustainable Development Technology Fund, PRECARN Phase III, and the Canada Foundation for Innovation. IC continues to support and work with these programs, encouraging Canadian firms to take advantage of the opportunities and to submit for project funding. A major challenge for IC that is associated with this initiative, in view of the significant investments involved, remains the challenge of identifying the downstream benefits of funding technology innovation. Often funding is provided at the earliest stages of technology R&D. Devising a credible approach to project downstream benefits of government funding for innovation needs to be devised and built into the decision-making process.

Encouraging new approaches—Industry Canada recognizes that Canadians need to shift from an SD framework based on cleanup and control to one based on anticipation, avoidance, assessment and precaution. Relevant SDS II activities in this area include: working with Genome Canada to ensure that it meets the commitments of its Funding Agreement, and managing the overall relationship between Genome Canada and the federal government; developing technology roadmaps which lead to significant collaborative actions by many stakeholders in several industry sectors; completing a series of reports on "international competitiveness analysis" which are aimed at benchmarking public support for Canadian environmental technologies against that of major competitors.

Other successful initiatives under this area of SDS II include the Trade Team Canada Environment and Sustainable Cities Initiative. These endeavours have resulted in many Canadian firms benefiting from the development of international markets and extending market access for domestic and global opportunities. For example, well over 600 Canadian firms, NGOs and government organizations participated in the SCI pilot project, which has now evolved into a full fledged $9 million program for 17 cities around the world.

Working together through partnerships—The SDS II strategy built on the interagency and intergovernmental networks established through the Canadian Environmental Industry Strategy (CEIS), and includes key industry sectors. Partnerships among businesses, universities, professional associations and all levels of government are aimed at building a world-class environmental technologies industry in Canada.

Industry Canada has successfully worked closely with many partners to address climate change issues; fuel cell development; negotiating flexibility in the Kyoto Protocol; developing technology roadmaps; developing industry benchmarks; setting up Networks of Centres of Excellence and innovation clusters; and setting up a useful web site for Canadian Environmental Solutions. The results achieved from these partnership activities have contributed to setting up situations that help reduce industrial emissions of greenhouse gases, develop hydrogen and fuel cell technologies, and introduce biotechnologies that advance SD. In summary, according to many of the IC staff interviewed, the department has become smarter (more effective) in collaborating and partnering, for SD-related activities, with other government departments and agencies, non-profit organizations and industry associations.

4.3 Decision Making

In SDS II, IC set out a decision making objective to "improve the integration of sustainable development objectives into decision making, including the development and delivery of departmental policies, plans and operations." The department defined the following three priority areas that relate to this objective.

- **Improving planning practices—**The planning phase of the management system involves developing the policies, objectives and targets for identifying and managing the organization's responsibilities and obligations.

- **Enhancing implementation of sustainable development—**The implementation and operations phase of the management system and departmental decision making is concerned with acting upon the commitments made in the initial planning phase.

- **Strengthening consideration of SD in evaluation—**The evaluation phase of a management system involves developing methods and procedures for assessing an organization's performance with respect to its policies, programs, activities and operations.

Twenty action items fall under Industry Canada's "integration of SD into decision making" objective. Ten action items (action items 39 to 48) are related to "improving planning practices". Six action items (action items 49 to 55) fall under "enhancing implementation of sustainable development", while three action items (action items 56 to 58) relate to "strengthening consideration of SD in evaluation".

Exhibit 9 summarizes and comments on IC's progress in completing the decision making action items.

As Exhibit 9 shows, IC has undertaken a broad range of activities in order to complete the integration of SD into decision making objective. Out of 20 action items, the department has fulfilled or exceeded requirements connected to 13 items, and is making progress towards completing 5. Another 2 action items are reported to be in a planning or early implementation phase and may need to be rolled into SDS III.

Key mid-term results include:

- Elevation in the quality of discussion of SD and environmental impact issues at the Senior Policy Committee of IC.
- Improved Strategic Environmental Assessments (SEAs) implemented in numerous submissions and Memoranda to Cabinet.
- Project environmental assessments improved at IC through training, improved networking with other departments, and sharing best practices.
- IC has been proactive in advancing integration of social, economic and environmental elements of SD in several national and international fora.
- SD integrated into the Report on Plans and Priorities (RPP) and Departmental Performance Report (DPR), and SD added to IC's Priorities Chart in 2001.
- Three ADM champions appointed for outreach to industry, greening operations, and SDS implementation and monitoring.
- Robust eco-efficiency web site launched.
- The department continues to move forward on greening its operations.
- Several training and awareness initiatives on SD delivered to IC staff.
- SD considerations included in RMAFs and SDS II evaluation framework completed.

The bullets above only highlight key results. The discussion that follows expands on the status of the action items and justifies whether or not the department is on track to meet the SD objectives it set out in SDS II.

Improving planning practices—To improve planning practices related to SD issues, and to ensure commitment of Senior Management, Industry Canada appointed the Assistant Deputy Minister (ADM) of the Industry and Science Policy Sector as an SD champion to oversee the implementation and monitoring of the new strategy. The ADM of the Industry Sector (with support from the ADM of the Spectrum Information Technologies and Telecommunications Sector) was appointed as the champion of SD outreach to industry. The ADM of the Operations Sector became champion of the greening operations within the department.

Exhibit 9: SDS II Objective Achievement—Decision Making

Priorities and Action Items	Achievements	Comments
Priority Area: Improving planning practices		
39. Strengthening Senior Management roles	There is a noticeable improvement in the quality of discussion of SD and environmental impact issues at the Senior Policy Committee (SPC) of IC, due to: higher profile of SDS II as a strategic objective; increased emphasis on SD-related issues in the department's mandate; and SPC discussions specifically related to the Strategic Environmental Assessment (SEA) process and implementation.	Completed. A positive impact of SEA approval process.
40. Guidelines and template for Strategic Environment Assessments	SEA guidelines improved and refined for IC implementation. A total of 82 SEA questionnaires (to September 2002) have been completed for TBS submissions and Memoranda to Cabinet.	Completed. IC formally adopted SEA guidelines and template.
41. Strategic Environment Assessments web site	SEA training module developed and training of staff initiated. SEA online internal web site built. 82 SEA questionnaires completed (to September 2002) by IC.	Late implementation. Built up IC's capacity for conducting SEA reports.
42. Improvements to Project Environmental Assessments	EA improved at IC through training, improved networking with other departments, and sharing best practices and reporting procedures. EA training material accessible on Programs and Services EA web site. About 250 project environmental assessments (EA) reported by IC to the Federal Index.	Mid-point. Process is transparent and ongoing.
43. Strategic action plan for revising and upgrading the EMS	EMS gap analysis completed—to address gaps that exist between current IC practices and the EMS government-wide standard. Action plan was due to be implemented in Fall 2001. Training and implementation activities commenced but delayed due to lack of resources and other priorities.	Planning Development of action plan delayed due to lack of resources.
44. Integration of social, economic and environmental elements of SD	IC proactive in advancing integration of social, economic and environmental elements of SD in several national and international fora --e.g., Multistakeholder Committee on ODS and Alternatives; WSSD; UNEP; Canadian public consultations and interdepartmental reviews (involving environment regulations, laws, and treaties); and negotiations of critical elements of the legal/policy framework on environmental issues.	Mid-point. IC is working closely in partnership with counterparts in other federal departments.
45. SD policy research, including relationship to economic, environmental and social challenges	Research study of GE model for evaluating aggregate and industrial effects of Kyoto protocol. Research study on key drivers of eco-efficiency, productivity, and competitiveness. Research study for analyzing economic impacts of a double dividend approach to Kyoto.	Mid-point. Informed policies that impact on socio-economic and environmental dimensions of SD.
46. Exploring how government taxation and expenditure programs could support SD, in collaboration with NRTEE	Worked with NRTEE to research how government taxation and expenditure programs could support SD. One study completed – "Toward a Canadian Agenda for Ecological Fiscal Reform: First Steps". Study is available online through NRTEE web site.	Completed. IC provided ongoing advice for study.
47. Integration of SD into the Report on Plans and Priorities (RPP)	Incorporated SD into corporate decision making procedures and reporting documents as part of policy and program proposal process. Introduced several SD related key results commitments, activities and associated performance indicators in recent RPP 2002-2003.	Mid-point. Incorporating SD in successive RPPs.
48. Sustainable development champions	Three ADM champions appointed for outreach to industry, greening operations, and SDS implementation and monitoring. Reviews of SDS II progress done every six months. Reports prepared for Deputy Minister every six months.	Completed. Champions approach has enhanced SDS II implementation.

Exhibit 9: SDS II Objective Achievement—Decision Making (continued)

Priorities and Action Items	Achievements	Comments
Priority Area: Enhancing implementation of sustainable development		
49. Improvements to the SD Strategy Monitoring System	SD monitoring improved by creating web-based reporting system. Reporting system publicly available and stakeholders have access to progress reports. Regular reports to senior management prepared on performance and results.	Completed. Monitoring and reporting system is user-friendly/effective.
50. Dedicated eco-efficiency web site	Robust eco-efficiency web site completed with information and links on diagnostic tools; eco-efficiency solutions; sources for financing eco-efficiency investments; and government eco-efficiency resources databases. "Three-Steps to Eco-efficiency" self-assessment tool developed and published online.	Completed. Takes considerable resources to maintain.
51. Performance tracking of department's own operations	An environmental performance indicator measurement follow-up study was completed in 2002—including performance data on energy and water conservation, green procurement, automotive fleet management, non-hazardous materials, and solid waste. Performance tracking data demonstrate the department's progress against the SDS II and Greening Operations Action Plan goals. Data generally show that improvements have been made.	Completed. Good progress, but further improvements should be made.
52. Employee information and awareness program	8,500 IC staff received information on environmental operations within the department. Enviro-Notes using the Internet are used as a means to convey issues of concern to departmental staff on a regular and recurring basis. The Greening Operations plan is posted on Facilities Management's environmental stewardship web site. Results of a waste audit of 1,400 IC staff were posted on the IC Intranet site.	Early implementation. Employee information and awareness activities are ongoing.
53. Training program on sustainable development	Several training and awareness initiatives on SD concepts and practices delivered to IC staff—including training courses, presentations, relevant information uploads to IC's SD web site, "Environment Week" events and kiosk, SDS II implementation workshops.	Late implementation. Several training initiatives completed. Ongoing.
54. Assessment of status of IC's greening operations	Produced a gap analysis between IC's internal greening operations practices and the EMS standard (ISO 14001). Strategic action plan completed outlining priorities for IC—including energy and water conservation, green procurement, vehicle fleet usage, non-hazardous waste reduction, reuse and recycling, and hazardous materials management. An Environmental Performance Indicator (EPI) Measurement Survey indicated that on average each FTE in the department achieved a 52% waste diversion rate.	Completed. Status of IC's greening operations assessed.
55. Baseline studies of key environmental issues, e.g., energy, water audits	Three studies completed over a four-year period of operational impact on the environment, plus a number of targeted studies of individual factors or facilities.	Mid-point. Ongoing studies.
Priority Area: Strengthening consideration of SD in evaluation		
56. Integration of SD into evaluation frameworks	SD considerations included in RMAFs (e.g., for Core Loans Programs, Capital Leasing Pilot Project, and PRECARN Phase III Research Program). Guidelines for including SD considerations in frameworks and evaluations completed.	Completed. Guidelines prepared.
57. SDS II evaluation framework development	SDS II evaluation framework completed. Provides practical approach for evaluating SD initiatives.	Late implementation. Draft report circulated.
58. Mid-term evaluation of SDS II	SDS II mid-term evaluation report provides review of issues and lessons learned for input into SDS III development.	Late implementation. Draft report circulated.

For SDS II, a review of implementation progress and a report to the Deputy Minister every six months is part of the responsibilities of the champions. Moreover, the Senior Policy Committee (SPC) of IC regularly reviews SD initiatives and related issues. It is reported that there is a noticeable improvement in the quality of discussion of SD and environmental impact issues at the SPC due to the higher profile that SDS II has as a strategic objective of IC, and the increased emphasis on SD-related issues in the department's mandate. However, it has also been expressed by some IC staff and selected external stakeholders that the outreach initiative of IC will need to be enhanced during the next strategy, in order to increase its effectiveness through a concerted approach.

Notably, as well, the improved Strategic Environmental Assessment (SEA) process has impacted on planning at the department. SEAs are conducted for TBS submissions and Memoranda to Cabinet. The department has built up a significant capacity for conducting SEA reports.

Another significant improvement in SD planning practices during SDS II involves the evolution of how IC has worked with partners to establish or contribute to multi-stakeholder groups. For example, IC was proactive in advancing integration of social, economic, and environmental elements of SD in several national and international fora—e.g., Multistakeholder Committee on ODS and Alternatives; World Summit on Sustainable Development; UNEP; Canadian public consultations and interdepartmental reviews (involving environment regulations, laws, and treaties); and negotiations of critical elements of the legal/policy framework on environmental issues.

The department has successfully integrated SD into its Report on Plans and Priorities, including key results commitments, activities and associated performance indicators. However, the follow-up on measuring performance requires attention during the next phase of implementing sustainable development initiatives within the department.

Finally, while SDS II represents progress in establishing a strategic "top-down" view for SD at IC, the process is still seen by some in the department as a "bottom-up" collection of projects/action items. A combination of strategic "top-down" and grassroots "bottom-up" approaches is deemed more desirable.

Enhancing implementation of sustainable development—Implementing SD within the department is generally on track and includes several training and awareness initiatives on SD concepts and practices—including training courses, presentations, relevant information uploads to IC's SD web site, an "Environment Week" events and kiosk, and SDS II implementation workshops. The general response to these events and activities from IC staff interviewed for this study is that the information provided was useful.

The SD monitoring and reporting system created for SDS II is publicly available online and stakeholders have access to progress reports. SD monitoring has improved significantly by creating a web-based reporting system.

A robust eco-efficiency web site was completed with information and links on diagnostic tools; eco-efficiency solutions; sources for financing eco-efficiency investments; and

government eco-efficiency resources databases. This web site is considered to be instrumental and has helped facilitate the implementation of SD objectives of IC.

Finally, the department continues to be on track towards meeting its greening of operations targets. It is working to implement the Greening Operations Action Plan to ensure that departmental operations are conducted in a manner consistent with good environmental stewardship principles and practices. Relevant activities include: produced a gap analysis between IC's internal greening operations practices and the EMS standard (ISO 14001) which helped benchmark IC for targeting improvements needed; an environmental performance indicator (EPI) measurement survey indicated that on average each FTE in the department achieved a 52% waste diversion rate; and several information and awareness activities have successfully reached out to employees about Greening Operations. Performance tracking data generally show that improvements in greening operations at IC have been made.

The department has established an appropriate Environmental Management System that is compliant with federal guidelines and standards, and has selectively measured the extent of the departmental use of raw materials, energy, water and other resources. Generally, IC is on track in implementing requirements of its Greening Operations Action Plan, but limited resources have created significant challenges for the pace in which progress is achieved.

Strengthening consideration of SD in evaluation—Industry Canada has included SD considerations in evaluation projects. For example, RMAFs for the Core Loans Program, Capital Leasing Pilot Project, and PRECARN Phase III Research Program, included SD issues and considerations. The Audit and Evaluation Branch has also prepared: "Guidelines for Integrating Sustainable Development Issues in Industry Canada Evaluation Frameworks and Studies." These guidelines have been useful in providing a basis for strengthening consideration of SD in evaluation studies and frameworks.

An evaluation framework for SDS II was also prepared to inform the process of developing the SD strategy, including a logic model that charts out the linkages between activities, outcomes, and impacts of the strategy. However, the framework was not developed at the outset, during the planning stages of SDS II, and therefore it was not effective in contributing to the process.

It should be noted that the Commissioner of the Environment and Sustainable Development has set the year 2007 for a cumulative "Review of ten years of SD and SDS monitoring work and four generations of SDSs (1997, 2001, 2003, 2006)."[14] The department should be ready at that time to present a comprehensive evaluation of the cumulative near-term and long-term results of its SDS strategies over a ten-year period. Therefore, it is imperative that a summative evaluation framework be established for SDS III at an early stage, to inform the strategy and to prepare the department for a full evaluation of its four generations of SDSs in 2006-2007.

14 "Monitoring and Reporting on Progress toward Sustainable Development", Commissioner of the Environment and Sustainable Development, December 23, 2002.

4.4 Delivery Instruments for Achieving Impacts

The intended near-term impacts of SDS II are as follows:[15]

- Integrating SD into decision making
- Putting Industry Canada's own house in order
- Partnerships for sustainable development
- Improved planning
- Effective legislative and policy frameworks

The preceding sections of this chapter presented the available evidence on the results achieved by SDS II regarding *intended impacts*. On the other hand, there were no *unintended impacts* identified, either negative or positive, to report on. While some of the persons interviewed for this study suggested there might be certain unintended impacts to consider,[16] the evaluation found no credible evidence of such impacts. This is not to say that such unintended impacts may not occur, only that to corroborate there occurrence requires research work beyond the scope and budget of this evaluation study.

The department has a number of instruments that it can use to achieve the intended outcomes of its sustainable development strategies. Exhibit 10 lists several of these instruments and highlights how SDS II has utilized them. As Exhibit 10 demonstrates, the department has made good use of the diverse tools available to it to achieve SDS II results.

In the next sustainable development strategy (SDS III), the challenge for Industry Canada will be to select the appropriate instruments that best achieve the intended outcomes of the strategy, in a suitable timeframe that is consistent to a government-wide schedule for achieving results. This challenge can be mitigated only to the extent that consensus emerges on such a timeframe for results, with an accompanying clarity of vision expressed at a government-wide level, as well as within IC. Regardless of this challenge, however, it is important for the department to assess and select the most effective tools at its disposal that best achieve intended results, in a timely fashion.

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15 See Exhibit 4, SDS II Results Chain and Logic Model, in Chapter II.

16 For example, it was suggested that the lack of a more proactive regulatory regime for industry compliance to SD requirements could have long-term deleterious effects on Canada's progress towards an SD economy.

Exhibit 10: Delivery Instruments for Achieving SDS II Results

DELIVERY INSTRUMENTS	OUTCOMES								
	Capacity building in R&D and skills	Applying the tools in the marketplace	Measuring success	Promoting technology innovation	Encouraging new approaches	Working together through partnerships	Improving planning practices	Enhancing implementa-tion of SD	Strengthening consideration of SD in evaluation
Activity in international fora		√	√	√	√	√	√		
Funding support/programs	√			√	√	√			
Guidelines & application tools		√	√		√		√	√	√
MOUs & other agreements		√				√			
Multi-stakeholder committees	√	√	√	√			√	√	
Networking activities	√			√	√	√		√	
Newsletters, brochures & other info-dissemination materials & reports		√	√		√		√	√	
Partnerships/collaborations	√	√	√	√	√	√			
Policy & legislative framework				√			√	√	√
Putting own house in order							√	√	√
Research chairs	√			√					
Research studies & reports	√	√	√	√	√	√	√	√	√
Standards & regulations		√	√		√				
Technology demos & trade show venues				√	√	√			
Technology roadmaps				√	√	√			
Third-party delivery	√	√		√					
Training	√		√				√	√	
Web sites and databases		√			√	√	√	√	
Workshops/seminars		√	√			√	√	√	
Voluntary mechanisms		√			√				

4.5 Results of SDS II in Relation to IC's Strategic Objectives

Exhibit 11 shows the activity structure of SDS II, identifying departmental responsibility centres and the relationship of activities to Industry Canada's general strategic objectives (i.e., Innovation, Connectedness, Marketplace, Investment and Trade). The activities are also identified in the context of Industry Canada's corporate and management services that support the department's programs and define internal operations.

Overall, SDS II action items are evenly distributed across the three main objectives of the strategy. There are 19 action items related to the "productivity through eco-efficiency" objective; 19 action items related to the "environmental technologies" objective; and 20 action items related to the "decision making" objective.

To date, the department continues to make the strongest link with sustainable development through its innovation objective. However the department's contribution to SD appears to have become relatively more diversified in scope across the department and across IC's other strategic objectives, compared to SDS I. Based on Exhibit 11, at least 22 of the 58 SDS II action items are directly linked to the Innovation strategic objective, 8 are linked to Connectedness, 20 to Marketplace, 1 to Investment, and 4 to Trade. Twenty-two of the action items directly relate to the support function of corporate and management services. There is an overlap between some of these links because an action item can potentially relate to more than one strategic objective.

While SDS II has been incorporated in the department's overall strategic framework (as expressed in Industry Canada's *Making a Difference* document), the profile of SD within IC's Innovation Strategy document – *Achieving Excellence* – is less evident. The Innovation Strategy perhaps as a necessity seems to exist as a separate framework for action, but does not in itself explicitly link-up with SDS II. To engender a more robust role for SD within the department, it would be useful if the next strategy (SDS III) would be substantially more referenced within parallel strategies of the department—such as the Innovation Strategy.

Exhibit 11 also demonstrates that while a significant number of the action items reside within the Strategic Policy Branch (13 action items) and Environmental Affairs Branch (16 action items), there is nonetheless a great diversity of IC responsibility centres involved in SD initiatives (29 action items spread across 15 other responsibility centres). This spread represents a step forward, in comparison to SDS I, to diversify the SD efforts of Industry Canada.

Exhibit 10: SDS II Activity Structure

SDS II Objectives and Priority Action Areas	Action Items	IC Strategic Objectives						IC Responsibility Centre *
		Innovation	Connectedness	Marketplace	Investment	Trade	Support Function	
Objective: Productivity through Eco-Efficiency Enhance the capacity of Canadians, industries and firms to develop and use eco-efficient practices, tools, technologies and products that contribute to increased productivity and environmental performance.								
Priorities: Capacity building in R&D and skills	1. Research Chairs	√						EAB
	2. New Networks of Centres of Excellence	√						IPB
Applying the tools in the marketplace	3. Expanding the use of environmental standards & eco-efficiency tools	√		√				EAB
	4. Assisting SMEs to improve their performance through use of eco-efficient practices, tools and technologies	√						SPB
	5. Developing and implementing voluntary program – ARET replacement			√				EAB
	6. Promoting biodiversity stewardship			√				EAB
	7. Information products to industry and the public on eco-efficient practices and technologies – such as CES, BEPO, and EIVO		√					EAB
	8. Group of online information services		√					EAB
	9. Providing environmental information through the Web		√					EAB
	10. Development of voluntary environmental agreements			√				EAB
	11. Support to Consumer Association of Canada to assess credibility of consumer information on sustainability			√				OCA
	12. Support to Pollution Probe to study environmental information			√				OCA
	13. Biotechnology web site	√	√					LSB
	14. Eco-efficiency and connectedness		√					SPPB
Measuring success	15. Eco-efficiency and SD indicators through collaboration with NRTEE	√						SPB
	16. Corporate social responsibility international fora work			√			√	IBB
	17. Best practices in corporate social responsibility			√			√	EAB
	18. Corporate social responsibility indicator development			√			√	SPB
	19. Survey on industry reporting of SD	√		√				SPB

* Key for responsibility centre acronyms is provided at the end of Exhibit XX.

Exhibit 10: SDS II Activity Structure (Continued)

SDS II Objectives and Priority Action Areas	Action Items	IC Strategic Objectives						IC Responsibility Centre *
		Innovation	Connectedness	Marketplace	Investment	Trade	Support Function	
Objective: Environment Technologies Facilitate the development and diffusion of environmental and enabling technologies that produce long-term economic and environmental benefits.								
Priorities:								
Promoting technology innovation	20. TPC: investing in innovative technologies	√						TPC
	21. Sustainable Development Technology Fund	√						EAB
	22. PRECARN Phase III	√						ICTB
	23. Canada Foundation for Innovation	√						IPB
	24. Recycling computers and telecommunications equipment	√		√				ICTB
	25. Encourage firms to submit to SDTF, CCDF, SCI, TPC	√						AAB
Encouraging new approaches	26. Pathways to Growth for Environmental Technologies Sector Strategy	√						EAB
	27. Genome Canada	√						LSB
	28. Technology roadmaps for innovative technologies	√						MIB
	29. Advance Canada's leadership role in international venues	√				√		LSB
	30. International business development competitiveness analysis				√	√		EAB
	31. Trade Team Canada Environment (TTCE)					√		EAB
	32. Sustainable Cities Initiative			√		√		SCI
Working together through partnerships	33. Climate Change Office			√				EAB
	34. Support for fuel cell development	√		√				AAB
	35. Encourage GoC to purchase fuel cell products	√		√				AAB
	36. Innovation strategy and action plan for bioproducts and bioprocesses	√						LSB
	37. Regional workshops for opportunities to advance biotechnologies	√					√	LSB
	38. Canadian biotechnology solutions for the environment CD-ROM and web site	√	√					EAB

* Key for responsibility centre acronyms is provided at the end of Exhibit XX.

Exhibit 10: SDS II Activity Structure (Continued)

SDS II Objectives and Priority Action Areas	Action Items	IC Strategic Objectives						IC Responsibility Centre *
		Innovation	Connectedness	Marketplace	Investment	Trade	Support Function	
Objective: Decision Making Improve the integration of sustainable development objectives into decision making, including the development and delivery of departmental policies, plans and operations.								
Priorities: Improving planning practices	39. Strengthening Senior Management roles						√	SPB
	40. Guidelines and template for Strategic Environment Assessments						√	SPB
	41. Strategic Environment Assessments web site		√				√	SPB
	42. Improvements to Project Environmental Assessments			√			√	PSB
	43. Strategic action plan for revising and upgrading the EMS						√	TOB
	44. Integration of social, economic and environmental elements of SD			√			√	EAB
	45. SD policy research, including relationship to economic, environmental and social challenges			√			√	MEPAB
	46. Exploring how government taxation and expenditure programs could support SD, in collaboration with NRTEE			√				SPB
	47. Integration of SD into the Report on Plans and Priorities (RPP)						√	SPB
Enhancing implementation of sustainable development	48. Sustainable development champions						√	SPB
	49. Improvements to the SD Strategy Monitoring System						√	SPB
	50. Dedicated eco-efficiency web site		√					SPB
	51. Performance tracking of department's own operations						√	TOB
	52. Employee information and awareness program						√	TOB
	53. Training program on sustainable development						√	SPB
	54. Assessment of status of IC's greening operations						√	TOB
	55. Baseline studies of key environmental issues, e.g., energy, water audits						√	TOB
Strengthening consideration of SD in evaluation	56. Integration of SD into evaluation frameworks						√	AEB
	57. SDS II evaluation framework development						√	AEB
	58. Mid-term evaluation of SDS II						√	AEB

* Key for responsibility centre acronyms is provided at the end of Exhibit XX.

Exhibit 10: SDS II Activity Structure (Continued)

Key for Responsibility Centre Acronyms	
AAB	Aerospace and Automotive Branch
AEB	Audit and Evaluation Branch
EAB	Environment Affairs Branch
IBB	International Business Branch
ICTB	Information and Communications Technologies Branch
IPB	Innovation Policy Branch
LSB	Life Sciences Branch
MEPAB	Micro-Economic Policy Analysis Branch
MIB	Manufacturing Industries Branch
OCA	Office of Consumer Affairs
PSB	Programs and Services Branch
SCI	Sustainable Cities Initiative
SIB	Services Industries Branch
SPB	Strategic Policy Branch
SPPB	Strategic Policy and Planning Branch
TOB	Trade and Operations Branch
TPC	Technology Partnerships Canada

V. Lessons Learned and Recommendations

The lessons learned, from the design and delivery of SDS II, are presented in this chapter of the report. The following specific research question is addressed:

- What are the lessons learned, based on factors that might have facilitated and/or impeded the implementation of SDS II, which could be useful to SDS III?

The following lessons learned from the SDS II experience can help the department build on and improve the process for SDS III, so that government requirements can be met and SD can continue to become an integral component of departmental culture. Recommendations associated with the lessons learned are also presented.

Making progress—Industry Canada has considerably progressed since SDS I in advancing its sustainable development agenda. SDS II had 58 SD action items, compared to SDS I's 28. This in itself suggests an increase in SD activity in the department. However, it also means that there is a requirement to consolidate the various initiatives underway around key objectives of the strategy. While SDS II represents progress in establishing a strategic "top-down" view for SD at IC, the process is still seen by some as a fragmented "bottom-up" collection of projects/action items. A balance between the "top-down" and "bottom-up" perspectives would be useful, not only in terms of how these fit together on paper (i.e., in the strategic document itself), but also in the implementation process and in the reporting on results. ***Recommendation:*** *Industry Canada should consolidate the various action items that emerge for SDS III into no more than 10 key outcome areas that are associated with the objectives of the strategy. Implementation and reporting on results should be structured around these key outcome areas. While SDS II had 9 key outcome areas, the implementation and reporting structure of the strategy was focused on the 58 action items, and not around the 9 key outcome areas.*

Evaluation framework—While SDS II included a set of performance indicators associated with many of the SD action items, the challenge of measuring results of SD initiatives, in relation to the overall long-term objectives of the strategy, is still not sufficiently addressed. It should be noted that all other departments of government similarly face the same measurement challenges. The SDS I mid-term evaluation study recommended that the department carry out an evaluation framework to inform the process for measuring results – and to help develop evaluation indicators. This was not done until late in the implementation phase of SDS II. ***Recommendation:*** *An SDS III evaluation framework study, consistent with guidelines of Treasury Board Secretariat, should be undertaken concurrently with the planning process for developing the next strategy. This will contribute to addressing the issue of appropriate indicators for near-term and long-term analysis of results.*

Decision making—While Industry Canada has successfully integrated SD into its decision making process, a focus on integration continues to be necessary into and throughout the next three-year period. While the quality of discussion and expertise about SD has increased in the

department since the first generation of SD strategies, the challenges are ongoing and the need to remain vigilant is still present. ***Recommendation:*** *Integration of SD in the decision making process remains an important priority for Industry Canada, to maintain a high profile and a focus on this endeavour. SDS III should retain Decision Making as one of its strategic objectives.*

Scope and flexibility of the strategy—SDS II, as a strategic process and implementation framework, did not capture all SD-related work underway in the department. Some SD related initiatives and opportunities emerged after the strategy was implemented (e.g., activities of the Manufacturing Industries Branch regarding "lean manufacturing"). ***Recommendation:*** *While flexibility was demonstrated in the implementation of SDS II, in that it was possible to add new action items to the original 57,*[17] *the department should review the plan on an annual basis and adjust actions and deliverables as required, to meet key outcomes and objectives of the strategy.*

Monitoring and reporting—Compared to SDS I, SDS II monitoring and reporting have solicited praise, and hardly any complaints during the consultation process for this study. However, improvements are needed for capturing changes and additions to original plans and action items, and for tracking outcomes. ***Recommendation:*** *For SDS III, individual SD project leaders should consider compiling performance information consistent with the RMAF framework of Treasury Board Secretariat, on an ongoing basis as part of the SD monitoring and reporting system. In this respect, guidance from TBS and/or the office of the Commissioner of the Environment and Sustainable Development would be welcome. Nonetheless, the department needs to develop its own measurement system for SDS III.*

Resources—IC managers and staff consider the lack of funding as a significant constraint to SD implementation, generally resulting in a cautious approach in committing to relevant projects, with some exceptions. ***Recommendation:*** *The strategic planning process for SDS III should explore the potential of allocating funds for projects under an SDS III appropriation framework.*

Internal partnerships—The department has become smarter (more effective) in collaborating and partnering with other government departments, provinces, municipalities, and private industry, non-profit organizations and associations – for SD-related activities in general. However, from the consultation process for this study, there are perceived opportunities to improve internal partnerships, within the department, for SD initiatives. The Industry Canada SDS group could encourage internal partnerships with/between branches within the department. These internal partnerships could create synergies in expertise and knowledge and bring about cooperation towards more effective delivery of SD outcomes and objectives. Intradepartmental working groups could be used more effectively to capitalize on these synergies. ***Recommendation:*** *During the planning process for SDS III, the department should consider how to engender intradepartmental cooperation towards achieving the desired SD outcomes.*

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17 For example, the "take-back" initiative for recycling computers and telecommunications equipment was added as a new action item.

Results—SDS I and SDS II activities are expected to yield societal results in the long-term (e.g., 5-10 years hence, and beyond). However, there is a need to start planning early for a full-scale evaluation (in 2006-2007), to measure the cumulative impacts of SDS I, SDS II and SDS III. ***Recommendation:*** *To address the requirement of the Commissioner of the Environment and Sustainable Development, for a cumulative review in 2007 of ten years of SD and SDS monitoring work, Industry Canada should prepare to present a comprehensive evaluation of the cumulative near-term and long-term results of its SDS strategies.*