Progress Report 2014-2015

Industry Canada's 2014-2015 Progress Report on the Sustainable Development Strategy contains the following elements:

1. Industry Canada's Sustainable Development Vision Statement

2. Strategic Environmental Assessment report

3. Progress Report on Industry Canada's Contributions to Themes I to III of the 2013-2016 *Federal Sustainable Development Strategy*

    - **Theme I** Addressing Climate Change and Air Quality
    - **Theme II** Maintaining Water Quality and Availability
    - **Theme III** Protecting Nature and Canadians

4. Progress Report on Industry Canada's Contributions to Theme IV of the 2013-2016 *Federal Sustainable Development Strategy*

    - **Theme IV** Shrinking the Environmental Footprint: Beginning with Government

1. Industry Canada's Sustainable Development Vision Statement

In support of innovation and competitiveness, Industry Canada works with key partners to promote the benefits of sustainable development, and to encourage the greater adoption of sustainable technologies and practices by Canadian businesses, consumers and communities.

The Sustainable Development Vision Statement builds on Industry Canada's mandate and acknowledges the key role that Industry Canada has in fostering innovation and competitiveness, and promoting awareness of the economic benefits of sustainable development practices for businesses, consumers and communities.

Industry Canada will strive to be guided by this vision statement in policy and program development and implementation. As Canadian business, consumers and communities adopt sustainable technologies and practices, there are likely to be positive benefits for the environmental goals of the 2013-2016 *Federal Sustainable Development Strategy* — protecting air, water, nature and Canadians.

2. Strategic Environmental Assessment

Industry Canada's Strategic Environmental Assessment policy complies with the requirements of the *2010 Cabinet Directive on Environmental Assessment of Policy, Plans and Programs* and the 2010 Guidelines to the Cabinet Directive. The policy requires that the 2013-2016 *Federal Sustainable Development Strategy* goals and targets be taken into consideration in the Industry Canada decision-making process. In addition, Industry Canada has strengthened the Strategic Environmental Assessment management system to ensure that the policy is effectively implemented across the department and has made these tools available to Industry Canada employees.

During 2014-2015 reporting cycle, Industry Canada conducted a strategic environmental assessment (SEA) for all of its initiatives subject to the *2010 Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals.* In this period, the department conducted a total of 42 SEAs, with 26 in support of Cabinet discussions and 16 in support of Treasury Board Submissions. All of the SEAs were preliminary scans except for six that underwent the full SEA process. The departmental initiatives that underwent full SEAs were in support of the *Science, Technology and Innovation Strategy*; the Technology Demonstration Program; the Strategic Aerospace and Defense Initiative program; the Automotive Suppliers Innovation Program; the Pratt and Whitney project under the Strategic Aerospace and Defense Initiative program, and the 2014 IC *Sustainable Development Strategy*. All of these initiatives directly or indirectly advanced progress on the four goals of the Federal Sustainable Development Strategy—addressing climate change and air quality; protecting water quality and quantity; protecting nature and Canadians; and, greening government operations.

A full SEA was completed for the Technology Demonstration Program and found that the longer term outcome of the Program is to contribute to the achievement of broader environmental and other (technological, economic, and social) benefits for Canadians. As the Program supports R&D toward the development of new technologies and innovations, it is likely that these technologies will have important, positive, direct and indirect, environmental effects over the longer term such as decreasing greenhouse gas emissions which advances progress towards Goal 1 and Target 1 of the 2013–2016 *Federal Sustainable Development Strategy*. Accordingly, a SEA public statement was published on ISED's SEA Public Statements page.

A full SEA was also completed for the Automotive Suppliers Innovation Program and determined that the Program is likely to have important positive direct and indirect environmental effects over the longer term which will serve to advance the climate change mitigation goal and target of the 2013–2016 *Federal Sustainable Development Strategy*. Accordingly, a SEA public statement was published on ISED's SEA Public Statements page.

A full SEA was completed for the *Science, Technology and Innovation Strategy* and determined that it is likely to have important positive direct and indirect environmental effects over the longer term which will serve to advance the goals and targets of the 2013-2016 Federal Sustainable Development Strategy. These include reduced greenhouse gas (GHG) emissions and air pollution, improved water quality, sustainable use of natural and biological resources, reduced waste, and the prevention and mitigation of environmental disasters. Accordingly, an SEA public statement was published on IC's SEA Public Statements page.

A full SEA was also completed for the Strategic Aerospace and Defense Initiative (SADI) program of Industry Canada's Industrial Technologies Office contribution to Pratt and Whitney Canada (P&WC). The SADI contribution will likely have important positive environmental effects as P&WC develops more fuel efficient jet engines that are lighter and quieter, thus contributing positively to meeting some of the goals and targets under the 2013-2016 Federal Sustainable Development Strategy. Accordingly, an SEA public statement was published on IC's SEA Public Statements page.

A full SEA was completed for Industry Canada's *2014* Sustainable Development Strategy tabled in Parliament by the Minister of Industry Canada on November 5, 2014. Thirteen implementation plans make up the strategy, nine of which relate to the theme Addressing Climate Change and Air Quality. Under this theme, the goal is to "mitigate the effects of climate change, reduce greenhouse gas emission levels and adapt to unavoidable impacts". The SEA determined that the Strategy is likely to have important positive direct and indirect environmental effects over the long term which will serve to advance the goals and targets of the *2013-2016 Federal Sustainable Development Strategy* (FSDS). Accordingly, an SEA public statement was published on IC's SEA Public Statements page.

3. Progress Report on Industry Canada's Contributions to Themes I to III of the 2010-2013 *Federal Sustainable Development Strategy*

Implementation Strategy 1.1.3

Continue to work with industry stakeholders to encourage and promote the adoption and adaptation of new technologies such as aerospace.

Link to FSDS Goals and Targets

- **Theme I** Addressing Climate Change and Air Quality
    - **Goal 1** Climate Change: Reduce greenhouse gas emission levels to mitigate the severity and unavoidable impacts of climate change
        - **Target 1.1** Climate Change Mitigation: Relative to 2005 emissions levels, reduce Canada's total greenhouse gas emissions (GHG) 17% by 2020

Link to Industry Canada's PAA

- **Strategic Outcome 2:** Advancements in science and technology, knowledge, and innovation strengthen the Canadian economy
    - **Program:** Science, Technology and Innovation Capacity
        - **Sub-Program:** Science and Technology Partnerships
    - **Program:** Industrial Research and Development Financing
        - **Sub-Program:** Aerospace innovation

Description of the Implementation Strategy

Aerospace:

The Green Aviation Research and Development Network (GARDN) fosters development of technologies that will reduce the environmental footprint of the aerospace industry in a broad range of areas, from noise and emissions to materials and manufacturing processes. The objective of the GARDN is to provide collaborative opportunities for the original

equipment manufacturers, small and medium enterprises, universities and other key stakeholders in the areas of environmental technologies. Industry Canada will continue to participate as an Ex-Officio member of the Board of Directors of GARDN.

GARDN II, the second term of the initiative, has a budget of close to $24 million over five years funded equally by the federal government and participating aerospace companies, and will focus on three key themes: quiet, clean and sustainable technologies. GARDN II has already announced the launch of nine research and development projects, representing more than $15 million in funding. Beyond their environmental benefits, the projects are expected to have a positive impact on Canadian aerospace products and services, the business success of companies, and the training and development of highly qualified personnel.

Relationship with FSDS Target(s)

GARDN is intended to assist the Canadian aviation industry in reducing its environmental footprint and meeting environmental and sustainability requirements (in operation and manufacturing) through innovation in environmental technologies, infrastructure development, and collaboration across the industry.

Non-Financial Performance Results

Planned outcomes include: science and technology partnerships exist between industry and academia; and government, academic and industrial partners collaborate to minimize the aerospace industries' impacts on the environment.

Performance Measures

GARDN:

- Dollars of cash and in-kind industrial and other contributions leveraged per dollar investment for the GARDN
- Number of companies involved in GARDN

Performance Results

Industry Canada continues to participate as an Ex Officio member of the Board of Directors of the Green Aviation Research & Development Network (GARDN), an initiative supported by the Business-led Networks of Centres of Excellence (BL-NCE).

Fiscal year 2014-15 was a transition year for GARDN. Its application for renewal of funding for a second term was approved by BL-NCE. GARDN II took flight in 2014 with the launch of seven projects, and added an additional six new collaborative R&D projects later in the fiscal year.

Implementation Strategy 1.1.4

Continue to implement the Strategic Aerospace and Defence Initiative (SADI) in support of strategic research and development (R&D) projects that contribute to new aerospace and defence technologies, and may lead to the reduction of GHG emissions and produce new energy efficiencies.

Link to FSDS Goals and Targets

- **Theme I** Addressing Climate Change and Air Quality
    - **Goal 1** Climate Change: Reduce greenhouse gas emission levels to mitigate the severity and unavoidable impacts of climate change
        - **Target 1.1** Climate Change Mitigation: Relative to 2005 emissions levels, reduce Canada's total greenhouse gas emissions (GHG) 17% by 2020

Link to Industry Canada's PAA

- **Strategic Outcome:** Advancements in science and technology, knowledge, and innovation strengthen the Canadian economy
    - **Program:** Industrial Research and Development Financing
        - **Sub-Program:** Aerospace and Defence Innovation

Description of the Implementation Strategy

The Strategic Aerospace and Defence Initiative (SADI) has three objectives: encourage strategic R&D that will result in innovation and excellence in new products and services; enhance the competitiveness of Canadian aerospace and defence companies; and foster collaboration between research institutes, universities, colleges and the private sector. Although the environment and sustainable development are not explicit objectives of SADI, an ultimate outcome of the program is to contribute to the achievement of broader technological, economic, environmental and social benefits for Canadians.

In 2015–16, it is expected that additional SADI projects will be approved, some of which may result in the reduction of GHG emissions and produce energy efficiencies.

Relationship with FSDS Target(s)

Under SADI, approved projects may result in environmental benefits which help advance the goals and targets of the FSDS. For example, some projects may report a reduction of GHG emissions and energy efficiency (Goal 1: addressing air quality and climate change) and a reduction in material waste and conservation of natural resources (Goal 3: Protecting Nature and Canadians).

Non-Financial Performance Expectations

SADI's ultimate outcome is to contribute to the achievement of broader technological, economic, environmental and social benefits for Canadians.

Development and commercialization of innovative products, processes, services and technologies may have an environmental benefit for Canada.

Performance Measure

- Percentage of projects demonstrating broader environmental benefits to Canada (e.g. increased energy efficiency, conserved renewable and non-renewable natural resources, increased production efficiencies and/or reduced material usage)
- Number of projects to date in which the recipient has commercialized a new product, service or process as a result of Industry Canada financing
- Dollars to date of investment leveraged per dollar of Industry Canada disbursements in aerospace and defence R&D projects
- Number of projects to date for which the recipient has established a collaborative relationship with universities, colleges and/or affiliated research institutes

Performance Results

- As of March 31, 2015, 25 of 37 SADI projects have reported environmental benefits such as reduction in material waste, energy efficiency and conservation of natural resources.

Implementation Strategy 1.1.5

Continue to support the development and promote the use of corporate social responsibility (CSR) management tools by industry and the use of CSR standards in the Canadian marketplace in support of sustainable consumption and production, innovation and competitiveness.

Link to FSDS Goals and Targets

- **Theme I** Addressing Climate Change and Air Quality
  - **Goal 1** Climate Change: Reduce greenhouse gas emission levels to mitigate the severity and unavoidable impacts of climate change
    - **Target 1.1** Climate Change Mitigation: Relative to 2005 emissions levels, reduce Canada's total greenhouse gas emissions (GHG) 17% by 2020

Link to Industry Canada's PAA

- **Program:** Internal Services

Description of the Implementation Strategy

Under this implementation strategy, Industry Canada will:

- Continue to develop information and management tools for business to help them integrate CSR principles and practices into their core business strategy and daily operations in support of their competitiveness in the global marketplace.
- Continue to post resources on the IC CSR website, such as the 2014 CSR Implementation Guide for Canadian Business, Small and Medium Enterprise (SME) Sustainability Road Map, and the CSR Tool Kit for Business;
- Undertake strategic outreach activities to enhance effectiveness and reach of these tools; and
- Continue to promote CSR performance and reporting standards and practices relevant to Canadian business.

Relationship with FSDS Target(s)

Increased integration by the private sector of CSR practices and principles into core business strategy and daily operations will have a positive impact on all of the environmental goals of the FSDS. CSR practices that can help reduce GHG emissions include: eco-efficiency, which leads to reduced energy consumption; rationalization of fleets towards more fuel efficient transportation; design for environment/sustainability (DfE, DfS); life cycle analysis (LCA); sustainable/lean manufacturing practices and extended producer responsibility (EPR), which help reduce natural resource inputs into the production of

products, thus reducing GHG emissions; and protecting water and nature resources. The integration of CSR practices can make a positive contribution to the realization of sustainable consumption and production patterns in Canada.

Non-Financial Performance Expectations

The ultimate goal is to increase the number of Canadian companies integrating CSR practices into their core business strategy and daily operations, including supply chain mandates. An indicator of this would be the growing number of stand-alone and integrated CSR reports being produced by Canadian companies and posted online, particularly those following international standards on CSR disclosure and transparency, such as the Global Reporting Initiative (GRI). As Canadian businesses become increasingly aware of the business case for CSR integration and voluntary CSR standards are increasingly utilized by Canadian business, Canadian industry and SMEs may increase their competitiveness.

Performance Measures

- Number of strategic outreach activities undertaken with a CSR dimension
- Number of Canadian businesses issuing CSR reports
- Number of visits to IC CSR website
- Number of downloads of IC CSR website material

Performance Results

In 2014–15, IC:

- Published a blog on CSR standards for SMEs on the Canada Business Network;
- Published the *CSR Implementation Guide for Canadian Business;*
- Contributed to the development of the new federal CSR Strategy: *Doing Business the Canadian Way: A Strategy to Advance Corporate Social Responsibility in Canada's Extractive Sector Abroad;*
- Participated in the first National CSR Conference hosted by the Conference Board of Canada in Toronto in October 2014;
- Raised awareness of international CSR reporting and performance standards endorsed by the Government of Canada. More specifically, IC participated in the National Contact Point (NCP). The NCP is an interdepartmental committee chaired by the Department of Foreign Affairs, Trade and Development whose role is to promote awareness of the OECD Guidelines for Multinational Enterprises as it relates to the social, economic and environmental impact of their activities on the societies in which they operate. IC participated in the NCP's annual stakeholder outreach session

to promote awareness of the Guidelines. In the context of the OECD's Global Forum on Responsible Business Conduct, IC also hosted a delegation from the Alliance for Bangladesh Worker Safety and Canadian retailers;

- IC also participated in a Trade Facilitation Office Canada seminar on "Changing Expectations: An Introduction to Corporate Social Responsibility." The event was targeted at the diplomatic community, particularly trade officials from low and middle income countries interested in learning more about how SMEs can use CSR strategies, standards and practices to gain a competitive advantage and participate in global supply chains;

- The IC CSR website received more than 160,000 visits;

- Based on Global Reporting Initiative (GRI) data, while the number of Canadian businesses issuing GRI CSR reports decreased from 97 in 2013 to 85 in FY 2014-2015, there was a significant growth in the number of G4 (GRI's new sustainability reporting standard) reports from 1 to 18 over this period; and,

- Based on United Nations Global Compact data, an initiative focused on aligning companies' strategies and operations with universal principles on human rights, labour, environment, and anti-corruption, there has been a 30% growth in the number of Canadian companies joining the Compact between June 2013 and December 2014 for a total membership of 96.

Implementation Strategy 1.1.8

Continue to work with key stakeholders to ensure that consumers have the information and tools needed to protect their interests, while engaging in, and supporting, research and policy development on consumer issues such as sustainable consumption.

Link to FSDS Goals and Targets

- **Theme I** Addressing Climate Change and Air Quality
    - **Goal 1** Climate Change: Reduce greenhouse gas emission levels to mitigate the severity and unavoidable impacts of climate change
        - **Target 1.1** Climate Change Mitigation: Relative to 2005 emissions levels, reduce Canada's total greenhouse gas emissions (GHG) 17% by 2020

Link to Industry Canada's PAA

- **Strategic Outcome 1:** The Canadian Marketplace is Efficient and Competitive
    - **Program:** Consumer Affairs

Description of the Implementation Strategy

Industry Canada recognizes that consumers are increasingly interested in the environmental impact of the goods and services they buy, and are looking at ways to make more sustainable choices. Working with key stakeholders, the department strives to provide a wide breadth of consumer information and services, and engages in research and policy development on consumer issues such as sustainable consumption.

Industry Canada's Office of Consumer Affairs supports consumer groups and NGOs to ensure they provide effective input into policy development through its Contributions Program for Non-Profit Consumer and Voluntary Organization, funding over 40 sustainable consumption related research projects since 2002. This work can be found through the Consumer Policy Research Database, which was developed to increase knowledge transfer across the consumer policy research community. The department also works to ensure that consumers have the information and tools needed to protect their interests, while encouraging industry to be more innovative and productive. This includes the development of Consumer Information.ca, an online portal that gives fast and easy access to accurate, relevant and reliable consumer information, including information on sustainable consumption.

Under this Implementation Strategy, Industry Canada will:

- Promote the web content developed in 2013 on sustainable development for the consumerhandbook.ca, such as tips for green living, responsible product disposal and car sharing;
- Publish sustainable development related content to Industry Canada's Twitter account and News Canada articles, as well as review existing content to ensure that it remains relevant and up-to-date;
- Continue to actively participate and provide the consumer dimension in departmental working groups related to sustainable development activities and strategies;
- Provide ongoing research and analysis on consumer issues related to sustainable development and sustainable consumption; and
- Continue to support research and analysis on relevant and timely consumer issues, including sustainable development and consumption, via the Contributions Program for Non-Profit Consumer and Voluntary Organizations.

Relationship with FSDS Target(s)

Sustainable and responsible consumption practices by consumers can have a positive impact on achieving all the environmental goals in the FSDS. For example, when consumers choose to consider environmental factors when making a purchasing decision, they can influence how the product is made in terms of the amount of natural resources including energy and water used to produce it, the process used to produce it, and whether and how it can be recycled or re-used. These practices can advance sustainable consumption and production patterns across the economy.

Non-Financial Performance Expectations

Industry Canada's planned outcomes include: increased consumers awareness of sustainable consumption/responsible consumption issues and practices; increased integration of sustainable and responsible consumption practices into purchasing decisions; and, decision makers have access to informed analysis on issues affecting Canadian consumers.

Performance Measures

- Number of visitors accessing consumer information on sustainable consumption from Industry Canada
- Number of collaborative research or policy initiatives started or maintained related to sustainable consumption
- Number of times Industry Canada-supported analysis on sustainable consumption conducted by consumer organizations contributes to public policy discussions or media coverage
- Number of sustainable consumption research proposals received for funding under the OCA grants and contribution program
- Number of sustainable consumption research proposals supported annually

Performance Results

- **12,363** visitors accessed consumer information on sustainable consumption from Industry Canada in FY 2014-15.
- **3** collaborative research and policy initiatives related to sustainable consumption were started or maintained in FY 2014-15.

- **3** sustainable-related research proposals were received under the 2015-16 call for proposals under the Contributions Program for Non-Profit Consumer and Voluntary Organizations.

- **1** sustainable consumption research proposal was supported under the Contributions Program for Non-Profit Consumer and Voluntary Organizations in FY 2014-15.

Implementation Strategy 1.1.9

Continue to promote sustainable manufacturing practices to Canadian businesses recognizing that the adoption of technologies and processes that support innovation and competitiveness can also increase environmental sustainability.

Link to FSDS Goals and Targets

- **Theme I** Addressing Climate Change and Air Quality
    - **Goal 1** Climate Change: Reduce greenhouse gas emission levels to mitigate the severity and unavoidable impacts of climate change
        - **Target 1.1** Climate Change Mitigation: Relative to 2005 emissions levels, reduce Canada's total greenhouse gas emissions (GHG) 17% by 2020

Link to Industry Canada's PAA

- **Strategic Outcome 1:** Canadian businesses and communities are competitive
    - **Program:** Industrial Competitiveness and Capacity
        - **Sub-Program:** Industry-Specific Policy and Analysis

Description of the Implementation Strategy

In support of innovation and competitiveness, Industry Canada works with key partners to promote the benefits of sustainable manufacturing by encouraging greater adoption of new technologies and practices that minimize or eliminate production and processing wastes.

Under this implementation strategy, Industry Canada will post information on manufacturing on the Manufacturing Sector Gateway website and encourage greater adoption of advanced, more efficient manufacturing technologies and practices during outreach discussions with targeted stakeholders.

Relationship with FSDS Target(s)

Advanced manufacturing helps to achieve the FSDS environmental goals of addressing air pollution and climate change, maintaining water quality and quantity, and protecting nature as well as Goal 3 of the FSDS to enhance employee, community, and product safety.

Non-Financial Performance Expectations

Industry Canada's planned outcome is ensuring that decision makers have access to informed analysis on trends of Canadian industries.

Performance Measures

- Number of web visits/downloads of advanced manufacturing information from IC's Manufacturing Sector Gateway website

Performance Results

- There were 4,853 visits to IC's Manufacturing Sector Gateway website in 2014-15, which includes the link to information on sustainable manufacturing. Visits to the overall website have increased by 61% relative to FY 2013-2014.

Implementation Strategy 1.1.10

Continue to advance environmental sustainability through support to co-operatives as businesses with economic, environmental and social sustainability goals by identifying and addressing barriers and opportunities to co-operative growth, and enabling access to emerging market opportunities.

Link to FSDS Goals and Targets

- **Theme I** Addressing Climate Change and Air Quality
    - **Goal 1** Climate Change: Reduce greenhouse gas emission levels to mitigate the severity and unavoidable impacts of climate change
        - **Target 1.1** Climate Change Mitigation: Relative to 2005 emissions levels, reduce Canada's total greenhouse gas emissions (GHG) 17% by 2020

Link to Industry Canada's PAA

- **Program:** Internal Services

Description of the Implementation Strategy

Industry Canada advances environmental sustainability through its support to co-operatives as businesses with economic, environmental and social sustainability goals. Co-operative businesses, like a growing number of companies, see value in placing sustainability as part of the company's purpose, creating shared value and benefits for members and stakeholders. IC promotes increased uptake by entrepreneurs of the co-operatives business model by identifying and addressing barriers and opportunities to co-operative growth, and enabling co-operatives access to departmental programs and services in order to capture emerging market opportunities.

Industry Canada will:

- Continue to promote increased uptake by entrepreneurs of the co-operatives business model by raising awareness of the advantages of the model;

- Continue to enable co-operatives' access to government programs and services in order to capture market opportunities; and

Prepare and release 2010, 2011, and 2012 data from the Annual Survey of Co-operatives providing statistical foundation for research on environmental and sustainability trends with co-operatives.

Relationship with FSDS Target(s)

The growth of co-operative businesses across Canada is likely to have a positive impact on all of the environmental goals of the FSDS—addressing climate change and air quality, maintaining water quality and quantity, and protecting nature and Canadians.

Non-Financial Performance Expectations

Industry Canada's planned outcomes include: increased awareness by entrepreneurs of the co-operatives business model and the support available to them from Industry Canada; increased awareness by entrepreneurs of the co-operative business model and its contribution to sustainable development, particularly with respect to the influence it can have on shifting to sustainable consumption and production patterns in the economy.

Performance Measures

- Percentage of new businesses that utilize the co-operative business model.
- Growth in number of cooperatives in Canada.
- Number of strategic outreach activities undertaken with a co-operatives and sustainability dimension.
- Increased number of requests or usage of co-operative data to increase understanding of co-operatives with environmental and sustainable mandates.
- Increased number of downloads of materials, hits to IC's co-operatives policy website or requests for information.

Performance Results

- Sources from federal, provincial and territorial business registries indicate an overall increase in the total number of incorporated co-operative corporations in 2014.
- IC maintained a high level of outreach activities across the regions, which included:
    - Initiating and conducting a *Survey on Financing and Growth of Small and Medium Enterprises* (2014).
    - The AGM of Co-operatives and Mutuals Canada (June 2014);
    - The International Summit of Co-operatives in Quebec City (October 2014);
    - The Co-operatives and Mutuals Canada Delegates Meeting (November 2014);
    - The Federal, Provincial and Territorial Meeting of Officials Responsible for Co-operatives (February 2015); and,
    - The AGM of Federated Co-operatives Limited (March 2015).
- Request for co-operative data increased from 2 to 8. IC met eight comprehensive requests for co-op data to understand the economic, social and environmental impact of co-operatives at the national-level and in the jurisdictions of Ontario, Manitoba and Nova Scotia, as well as, within the agricultural and healthcare industries.

- In 2014, Industry Canada included co-operatives in the *2014 Survey on Financing and Growth of Small and Medium Enterprises* to build a more comprehensive evidence base on the issue of capitalization.

- In 2014, the Co-operatives Policy webpage received 1315 views, and 207 reference materials were downloaded.

Implementation Strategy 1.1.11

Continue to support the growth of business services to manufacturing, including those which integrate innovation into product design and development and into the supply chain, and can result in environmental sustainability benefits.

Link to FSDS Goals and Targets

- **Theme I** Addressing Climate Change and Air Quality
  - **Goal 1** Climate Change: Reduce greenhouse gas emission levels to mitigate the severity and unavoidable impacts of climate change
    - **Target 1.1** Climate Change Mitigation: Relative to 2005 emissions levels, reduce Canada's total greenhouse gas emissions (GHG) 17% by 2020

Link to Industry Canada's PAA

- **Strategic Outcome 3:** Canadian businesses and communities are competitive
  - **Program:** Industrial Competitiveness and Capacity
    - **Sub-Program:** Industry-Specific Policy and Analysis

Description of the Implementation Strategy

Industry Canada will continue to support the growth of business services to manufacturing, including those which integrate innovation into product design and development and into the supply chain, and can result in environmental sustainability benefits.

Relationship with FSDS Target(s)

The integration of environmental sustainability and eco-design early in the product development cycle enables manufacturers to reduce their environmental footprint, reduce waste and the use of materials and energy, extend product life, and facilitate re-use and recycling at the end-of-life stage for industrial as well as consumer products. Business services such as engineering, product development and design can contribute to manufacturing competitiveness as well achieving sustainable development objectives (e.g. through eco-design).These practices can help advance the FSDS goals of addressing climate change and air quality, water quality and quantity, and protecting nature by reducing overall impacts on the environment.

Non-Financial Performance Expectations

Industry Canada's planned outcomes include: decision makers have access to informed analysis on how business services such as design can help affect sustainable manufacturing practices; the role of professional services as enablers of manufacturing competitiveness is better understood; and manufacturers better understand the contribution of services such as engineering, design and eco-design in meeting corporate objectives.

Performance Measures

- Number of collaborative research or policy initiatives started or maintained on business services for the manufacturing industry

- Number of strategic outreach activities undertaken with a business services and sustainability, sustainable consumption and production dimension

Performance Results

- Industry Canada initiated research on servitization – analyzing the shift of manufacturing firms to develop the capabilities they need to provide services and solutions that supplement their traditional product offerings. This includes customer solutions on sustainable operations, environmental practices, and integrating related services in products and technologies.

Implementation Strategy 1.1.21

Continue to collaborate with partners to enhance Canada's competitive advantage in hydrogen and fuel cells technology development and commercialization.

Link to FSDS Goals and Targets

- **Theme I** Addressing Climate Change and Air Quality
    - **Goal 1** Climate Change: Reduce greenhouse gas emission levels to mitigate the severity and unavoidable impacts of climate change
        - **Target 1.1** Climate Change Mitigation: Relative to 2005 emissions levels, reduce Canada's total greenhouse gas emissions (GHG) 17% by 2020
    - **Goal 2** Air Pollution: Minimize the threats to air quality so that the air Canadians breathe is clean and supports healthy ecosystems
        - **Target 2.1** Air Pollutants: Reduce air pollutants in order to maintain or improve air quality across the country and achieve the emission targets which are currently under development in consultations with provinces and stakeholders

Link to Industry Canada's PAA

- **Strategic Outcome 2:** Advancements in science and technology, knowledge, and innovation strengthen the Canadian economy
    - **Program:** Science, Technology and Innovation Capacity
        - **Sub-Program:** Science and Technology Partnerships

Description of the Implementation Strategy

Canada is recognized internationally as a global leader in hydrogen and fuel cell research, development and early stage commercialization. The sector largely consists of small and medium-sized enterprises and research organizations supported by a well-educated labour force. The largest cluster of hydrogen and fuel cell companies in Canada is located in British Columbia (see the Canadian Hydrogen and Fuel Cell Sector Profile 2013).

Industry Canada will identify potential issues and opportunities for global value chain engagement and hydrogen energy storage applications.

Relationship with FSDS Target(s)

Deployment of renewable energy technologies and use of hydrogen as an energy carrier will help increase the efficiency of energy systems thereby reducing environmental impacts.

Non-Financial Performance Expectations

Industry Canada's planned outcomes include: decision makers have access to informed analysis on trends and issues affecting the competitiveness of Canadian industries.

Performance Measures:

- Collaborative research or policy initiatives started or maintained on hydrogen and fuel cell technology development and commercialization.

Performance Results

- Produced the annual "Canadian Hydrogen and Fuel Cell Sector Profile 2014" report in partnership with the Canadian Hydrogen & Fuel Cell Association.
- Collaborated with automotive equipment manufacturers, academic institutions and public research facilities to identify fuel cell stack supply chain opportunities for Canadian companies.
- Completed a Power to Gas analytical project under the auspices of the Canada/US Clean Energy Dialogue that involved the US Department of Energy, the US National Renewable Energy Laboratories, the National Research Centre, the Canadian Nuclear Laboratory, Natural Resources Canada, and Environment Canada, along with industry representatives.

Implementation Strategy 1.1.28

Continue to implement the Automotive Innovation Fund (AIF) through to 2018 in support of strategic, large-scale research and development projects leading to innovative, greener and more fuel-efficient vehicles.

Link to FSDS Goals and Targets

- **Theme I** Addressing Climate Change and Air Quality

- **Goal 1** Climate Change Mitigation: Reduce greenhouse gas emission levels to mitigate the severity and unavoidable impacts of climate change
    - **Target 1.1** Climate Change Mitigation: Relative to 2005 emissions levels, reduce Canada's total greenhouse gas emissions (GHG) 17% by 2020

Link to Industry Canada's PAA

- **Strategic Outcome 2:** Advancements in science and technology, knowledge, and innovation strengthen the Canadian economy
    - **Program:** Industrial Research and Development Financing
        - **Sub-Program:** Automotive Innovation

Description of the Implementation Strategy

Budget 2014 announced that the Government of Canada would provide an additional $500 million over two years to the Automotive Innovation Fund to support significant new strategic research and development (R&D) projects and build innovative, greener, more fuel-efficient vehicles. The program was renewed on January 4, 2013, with an additional $250 million in funding over the following five years (2013-2014 to 2017-2018). Under the AIF, IC considers funding proposals that provide for private sector investment in Canada of more than $75 million over five years for vehicle or power train assembly operations associated with significant automotive innovation and R&D initiatives. The AIF was originally launched in Budget 2008 with the announcement that the government would provide $250 million over five years to support the program.

The objectives of the AIF are:

- Build automotive research and development capacity in Canada and secure knowledge-based jobs;
- Enhance the government's science and technology (S&T) and environmental agendas;
- Support the development and/or implementation of innovative, fuel-efficient technologies or processes;
- Promote long-term economic benefit to Canada including significant job creation/retention; and
- Leverage private sector investments to foster Canadian competitiveness.

Each eligible project considered for funding is subject to a comprehensive due diligence process that may involve external experts who will examine the feasibility of the proposed

eligible project. All proposals are assessed in the context of their relevance to the objectives of the AIF and must provide environmental, technological, and economic benefits to Canada.

Eligible activities supported under the AIF are those typically associated with major automotive innovation and R&D initiatives to develop and build greener, more fuel-efficient vehicles, including:

- New product development (e.g., advanced emissions technologies, energy-efficient engines and transmissions, advanced materials, including engineered plastics, and lightweight components and materials);
- Leading-edge engineering and design, and prototype development;
- Advanced product testing that ensures cleaner, more efficient automotive performance, and reduced greenhouse gases;
- Development of new production methods and process technologies, including advanced flexible manufacturing techniques;
- New or expanded facilities to produce leading-edge and more energy efficient vehicles and powertrains;
- Substantive investments in new flexible manufacturing processes; and
- Introduction of other new transformative production technologies to substantially increase productivity and efficiency (e.g., robotics and advanced IT systems).

Relationship with FSDS Target(s)

The continued implementation of the AIF program should result in innovative, greener and more fuel-efficient vehicles, and more eco-efficient and sustainable manufacturing facilities and processes that will help reduce GHG emissions and air pollution, thus helping to achieve the environmental goal of the FSDS Theme 1—addressing climate change and air quality.

Non-Financial Performance Expectations

Industry Canada's planned outcomes include the signature of at least one contribution agreement with an automotive company towards an investment in strategic, large-scale R&D projects to build innovative, greener, more fuel—efficient vehicles. Once successfully completed, it is anticipated that the project will result in innovative, greener, and more fuel-efficient vehicles and/or powertrains assembled in Canada, and/or more innovative, fuel-efficient technologies or processes being implemented in the automotive sector. Projects should also increase the automotive R&D capacity in Canada and thus secure knowledge-

based jobs in that sector. The AIF will also continue to be a key lever in encouraging investments in automotive innovation in Canada.

Performance Measures:

- Number of projects to date focusing on innovative fuel-efficient technologies and processes

- Dollars to date of investment leveraged per dollar of Industry Canada disbursements in automotive R&D projects

Performance Results

- An agreement was signed in 2014–2015, bringing the total number of agreements focusing on innovative fuel-efficient technologies and processes to 7.

- To date, $7.04 of investment was leveraged per dollar of federal disbursements for AIF related projects.

- Given that the AIF has generated up to $2.3 billion in investments since 2008, it continues to be one of Canada's main levers to encourage investments in automotive innovation.

- The AIF has also contributed to reduced GHG emissions by encouraging new product development in advanced emissions technologies, energy-efficient engines and transmissions, advanced materials, including engineered plastics, and lightweight components and materials. The program has led to the automotive industry further developing innovative and greener production methods and process technologies, which have resulted in reduced emissions in manufacturing facilities.

Implementation Strategy 4.3.8

Provide scientific expertise, guidance and advice to decision makers, and develop and apply models for social, cultural and economic valuation of ecosystem services to support sustainable development decision making so that ecosystem information and environmental effects of development proposals can be factored into decisions.

Link to FSDS Goals and Targets

- **Theme 3** Protecting Nature and Canadians
    - **Goal 4** Targets to conserve and restore ecosystems, wildlife and habitat
        - **Target 4.3** Terrestrial Ecosystems and Habitat Stewardship

Link to Industry Canada's PAA

- **Program:** Internal Services

Description of the Implementation Strategy

Ecosystem services, which include the process of plants releasing oxygen to the atmosphere while absorbing carbon dioxide, biotic material filtering drinking water, and the process of pollination by insects and birds that allow new plants to grow, have socio-economic value. Increased understanding by government and business of the value of ecosystem services in the economy can increase the understanding of the environmental effects of economic development proposals and this knowledge can be factored into decision making. Over the next year, Industry Canada will work with Environment Canada, Statistics Canada and academics to link data on plant and firm activity (through the annual survey of manufacturers) to data for environmental outcomes (e.g., carbon emissions).

Relationship with FSDS Target(s)

As the understanding of the socio-economic value of ecosystem services increases, it is likely that decision makers will take decisions that increasingly take into consideration the value of ecosystem services. This will help conserve and restore those ecosystems, thus protecting nature.

Non-Financial Performance Expectations

Industry Canada's planned outcomes include improved understanding by decision makers in the public and private sectors of the value of ecosystem services, and integration of the value of ecosystem services into decision making.

Performance Measures

- Number of times that the value of ecosystem services is integrated into decision-making

Performance Results

- To be determined.

Implementation Strategy 4.3.9

Support research efforts to develop and apply models for economic valuation of natural capital to improve the understanding of natural capital productivity and productivity in general in Canada and to support sustainable development decision-making.

Link to FSDS Goals and Targets

- **Theme 3** Protecting Nature and Canadians
    - **Goal 4** Targets to conserve and restore ecosystems, wildlife and habitat
        - **Target 4.3** Terrestrial Ecosystems and Habitat Stewardship

Link to Industry Canada's PAA

- **Program:** Internal Services

Description of Implementation Strategy

Canada's economy relies on natural capital. Natural capital includes nature's renewable and non-renewable assets that produce socio-economic value such as minerals, energy resources, water resources, plants and animals, and biotic ecosystems. Like all assets, nature's assets should be understood, measured and managed. Measuring the value of natural capital helps to identify those resources which are being used optimally and allows informed decision-making about economic development. Using natural resources more efficiently and increasing their productivity is crucial to Canada's sustainable economic growth.

Industry Canada has formally pledged support for a Social Sciences and Humanities Research Council partnership development grant research project on natural capital and productivity, which is being led by Sustainable Prosperity, a think-tank based at the University of Ottawa. In the next year, Industry Canada will work with Sustainable Prosperity to support the development and implementation of a research plan.

Relationship with FSDS Target(s)

Supporting research on the economic valuation of natural capital may help protect nature by increasing the understanding of its importance to sustainable economic development. Understanding the value of Canada's renewable and non-renewable natural assets may lead to more sustainable consumption and production strategies by industry as resources are used more efficiently and less waste is produced.

Non-Financial Performance Expectations

Industry Canada's planned outcomes include: improved measurement and management of Canada's natural assets; the integration of concepts related to the valuation of natural capital and natural capital productivity into public and private sector decision-making; the integration of natural capital considerations into national accounts; and, improved productivity outcomes for Canada as these concepts are integrated into productivity data and measures.

Performance Measures

- Industry Canada's contribution to the development and implementation of the research plan

Performance Results

- Sustainable Prosperity, in partnership with academia, government, and industry held a Natural Capital Productivity Workshop on February 27, 2015. The partnership is expected to lead to the launch of a special project website to publish findings as they develop.

Implementation Strategy 4.7.4

In accordance with mandated responsibilities, provide environmental and/or other information to reduce the risk of, and advice in response to, the occurrence of events such as polluting incidents, wildlife disease events or severe weather and other significant hydro-meteorological events as applicable.

Link to FSDS Goals and Targets

- **Theme 3** Protecting Nature and Canadians
    - **Goal 4** Targets to conserve and restore ecosystems, wildlife and habitat, and targets to protect Canadians
        - **Target 4.7** Environmental Disasters, Incidents and Emergencies

Link to Industry Canada's PAA

- **Strategic Outcome 1:** The Canadian marketplace is efficient and competitive
    - **Program:** Spectrum, Telecommunications and the Online Economy
        - **Sub-Program:** Spectrum Management and Telecommunications

Description of the Implementation Strategy

Under the Federal Emergency Response Plan (FERP), Industry Canada is responsible for:

- Facilitating the restoration and maintenance of telecommunications services during an emergency situation by providing situational awareness and federal representation of the telecommunications stakeholders' interests in efforts such as fuel prioritization, credentialing, public communications, international assistance, and the movement of resources; and

- Working with the telecommunications sector to ensure the telecommunications needs of first responders are met and to enhance the repair and restoration of affected networks. In times of emergency, the short term capability to facilitate the rapid repair, replacement and expansion of telecommunications systems is Industry Canada's highest priority.

Relationship with FSDS Target(s)

By providing situational awareness and assistance to telecommunications companies in their efforts to maintain or restore Canada's telecommunications services in an environmental emergency or disaster, Industry Canada contributes to the protection of the health and safety of Canadians and that of the community in general. Protecting Canadians is a goal of the FSDS.

Non-Financial Performance Expectations

In order to be well prepared to respond to an environmental emergency, IC will keep its networks up-to-date, and keep its emergency response plans up-to-date and review them regularly. As a result, Canadians are protected from effects of natural disasters as it relates to the maintenance of emergency telecommunications services.

Performance Measure

- Up- to-date emergency response plans

Performance Results

- Industry Canada updated its emergency response plan. The draft will be refined and finalized in Q1 of 2015-16.

Implementation Strategy 4.8.4

Continue to co-operate with partners across Canada to implement the Computers for Schools program to divert electronic equipment from landfills thus protecting nature, preventing water pollution and providing economic and social benefits to Canadians.

Link to FSDS Goals and Targets

- **Theme 3** Protecting Nature and Canadians
    - **Goal 4** Targets to conserve and restore ecosystems, wildlife and habitat, and targets to protect Canadians
        - **Target 4.8** Chemicals Management

Link to Industry Canada's PAA

- **Strategic Outcome 3:** Canadian businesses and communities are competitive
    - **Program:** Community Economic Development
        - **Sub-Program:** Computers for Schools

Description of the Implementation Strategy

Industry Canada's Computers for Schools Program advances environmental sustainability by refurbishing computers and related equipment donated by the public and private sectors. The refurbished computers are distributed across Canada to schools, libraries, registered not-for-profit learning organizations, and Aboriginal communities.

By maximizing the utilization of electronic resources, the Computers for Schools Program not only has a positive impact on the environment but provides the opportunity for youth to gain skills and experience in the field of information and communications technology. The re-use of equipment positively impacts the future generation of workers and students by exposing them to technologies and preparing them to be successful in the knowledge-based economy.

Over the next year, Industry Canada will:

- Continue to manage the Computers for Schools Program to maximize use of electronic resources;
- Require recipients to provide details on their recycling protocols; and
- Report on the amount of e-waste material managed in 2014 –2015.

The Computers for Schools program (CFS) is also part of Digital Canada 150, Canada's digital economy strategy, which represents a comprehensive approach to ensuring Canada can take full advantage of the opportunities of the digital age. It also envisions Canadians armed with the skills and opportunities necessary to succeed in an interconnected global economy. Digital Canada 150 is built on five pillars: Connecting Canadians; Protecting Canadians; Economic Opportunities; Digital Government; and Canadian Content. The CFS program is one of the key components of the Economic Opportunities pillar and provides students and interns with access to digital equipment and skills training.

Relationship with FSDS Target(s)

Through the use of accredited recycling programs, Industry Canada is diverting electronic waste from land fill sites, and making a positive contribution to the *Federal Sustainable Development Strategy* goals of protecting air, water and nature. Electronic waste contains many chemicals and metals which are toxic to the environment. If this waste is disposed in landfill sites, there is a high risk of seepage into the ground water and the soil, which could affect wildlife and their habitat. Refurbishment activities through the Computers for Schools Program have considerable environmental benefits, such as positive impact on energy used, greenhouse gas reduction, solid and hazardous waste reduction, reduced air and water emissions, and reduction of the environmental footprint. Proper management of chemical substances is essential for protecting the health of Canadians and the environment, as well as reducing future costs associated with water treatment, clean-up of contaminated sites, and treatment of illnesses related to chemical exposure.

Non-Financial Performance Expectations

Industry Canada will report statistical information on the amount of electronic waste diverted from landfill and sent to recycling for each of its funding recipients. Industry Canada will also report on the number of refurbished computer units delivered annually to partner organizations. The expected result is schools, libraries, not-for-profit learning organizations and Aboriginal communities will receive refurbished computers.

Performance Measures

- The amount of electronic waste sent to recycling for each of its funding recipients
- The number of computer equipment donations and refurbished computer units delivered annually to partner organizations

Performance Results

- In FY 2014-2015, the program received over 250,000 computer equipment donations with approximately 100,000 refurbished computer units delivered to partner organizations and over 4.3 million pounds of e-waste diverted from landfills.
- Since its inception in 1993, the CFS program has made a significant and positive impact on the environment. To date, approximately 1.4 million computers have been refurbished and distributed throughout Canada and approximately 41,000 tons of e-waste has been diverted under the program. The program has also contributed to the continued development of provincial producer responsibility programs for e-waste recycling. Recycling programs have been developed in all provinces with the exception of New Brunswick.

4. Theme IV: Implementation Strategies

Industry Canada contributes to Theme IV: Shrinking the Environmental Footprint: Beginning with Government. Specifically, the Department contributes to:

- Green procurement targets (including targets related to training, performance
- Evaluations, and management processes and controls);
- Recycling all surplus electronic and electrical equipment in an environmentally sound manner;
- Reducing internal paper consumption per employee by 20 percent from 2006–07 levels;
- Achieving an 8:1 ratio of employees to printing units;
- Adopting a guide for greening meetings and events;
- Reducing greenhouse gas emissions from fleet vehicles by 17 percent from 2005–06 levels by 2020; and,
- Achieving a high environmental performance of buildings.

Details on Industry Canada's progress in meeting the targets towards Greening Government Operations are provided through the supplementary information tables itemized in the Departmental Performance Report.

On November 4, 2015, as part of the creation of the new ministry, the names of several departments have changed to reflect the government's priorities. Following these changes, Industry Canada's applied title became **Innovation, Science and Economic Development Canada**.