

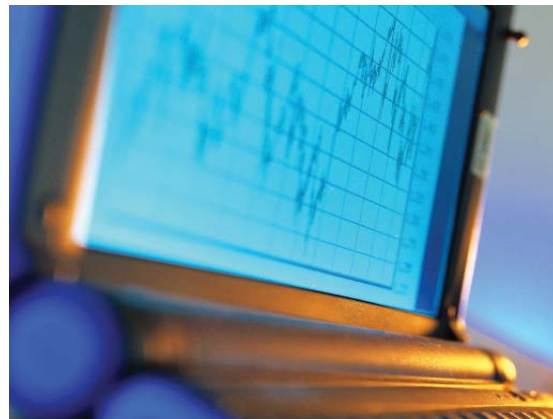


Integrated Business Plan

Implementing Renewal and Transformation



“Improving the quality of life of Canadians by creating a sustainable resource advantage”



2013–2016



Table of Contents

Message from the Deputy Minister and the Associate Deputy Ministers	1
Executive Summary	2
Introduction	3
Strategic Context and Priorities	5
Global Context	5
Canada's Context	5
Strategic Priorities	9
Corporate Context and Priorities	20
Corporate Context	20
Corporate Priorities	23
Conclusion	31

Message from the Deputy Minister and the Associate Deputy Ministers

Like last year's plan, this year's Integrated Business Plan organizes our commitments according to our four strategic and four corporate priorities – priorities that are well established and aligned with the objectives of the Government of Canada and the Public Service.

Through our strategic priorities, we aim to expand markets and international partnerships, to help Canada realize the full potential of our natural resources through responsible development, to support innovation that enhances the competitiveness and environmental performance of our natural resource sectors, and to develop and apply S&T knowledge for the safety and security of Canadians. These efforts are contributing to the Government's objectives of strong economic growth, a clean and healthy environment, and a safe and secure Canada.

Through our corporate priorities, we strive to be policy leaders, to leverage our science and technology, to transform the way we do business, and to develop our people – objectives that are consistent with the Head of the Public Service's call to be more collaborative, innovative, and high-performing.

Moving forward together, we will advance our strategic and corporate priorities while anticipating and adapting to changes in our environment and transforming and renewing the way we work. Whether you are an explosives inspector, a lab technician, a policy analyst or a procurement officer, you have a role to play in enabling NRCan to deliver on its priorities.

This Integrated Business Plan represents our plans at a point in time. However, releasing a plan doesn't end the process of thinking about the future. We need to continue having conversations that enable us to build the next iteration of our agenda. Every employee of NRCan has a role not only in executing this plan today, but also in reflecting on what we need to do to prepare for tomorrow.

Along with other corporate and sector plans, use this Integrated Business Plan as a reference to guide your actions in the coming year and to inspire conversations about the future and how we will need to respond.

"Who would have thought a year ago that our resource-rich country would face the challenge of competitive energy supplies from shale gas and new sources of petroleum in the U.S.? Who would have imagined that pipelines would be so prominent on the national and international agenda? Or that they would be an issue for Quebec and New Brunswick as well as Alberta and British Columbia?"

In one way or another, Canadians will have to deal with these new and often difficult issues. In almost every case, resolving them will demand that the federal government play a constructive and imaginative role. Ministers will not be effective in dealing with these issues without the support of a skilled, informed and adaptable Public Service. Today as much as ever, Canada's Public Service has an essential contribution to make to the national interest."

Seventh Report to the Prime Minister, March 2013



Serge P. Dupont
Deputy Minister



Karen Ellis
Associate Deputy Minister



Michael Keenan
Associate Deputy Minister

Executive Summary

Purpose

The Integrated Business Plan (IBP) is a reference document that identifies the department's priorities, outlines its planned activities, and demonstrates how resources are allocated to fulfill the commitments of the department over the next three fiscal years.

Structure

Using strategic and corporate priorities to structure the information, the plan presents short and medium-term commitments. It also draws linkages between these commitments and the information available in other departmental documents such as [sector-level Integrated Business Plans](#) and the [Program Alignment Architecture](#).

Why it's important

As is true for any work undertaken by a team, for an organization to be successful, the desired end-result and the preferred path to get there must be clear to the entire team. The IBP provides this information.

Strategic context

Canada possesses a remarkable endowment of natural resources. For such resources to generate value for Canadians, they must be developed responsibly and make their way into the international market either as raw materials or valued-added products. The value of natural resource products is influenced by global supply and demand and, as these change, so too do the prices Canada's natural resources will garner. For this reason, the responsible development of natural resources in Canada must be looked at through a global lens. Historically, the United States (US) and the European Union (EU) have been the main export markets for Canada's natural resources. As the US and the EU continue to face economic challenges and as the Asia-Pacific region rises, Canada's context is being shaped by external changes in demand. And since the natural resource sectors account for 15% of Canada's nominal gross domestic product, Canada must adapt to this international shifting demand.

Where we are going

NRCan has identified four strategic priorities based on the risks the organization must mitigate and the opportunities it can seize:

1. *Expand markets and global partnerships,*
2. *Unlock resource potential through responsible development,*
3. *Innovate for competitiveness and environmental performance, and*

4. *Leverage S&T knowledge for safety and security risk management.*

These strategic priorities will help NRCan focus its efforts to promote market access and diversification, encourage investment, develop the necessary infrastructure, build partnerships and engagement, advance innovation, and ensure adequate labour and skills in the natural resource sectors.

Corporate context

In his [Nineteenth Annual Report to the Prime Minister on the Public Service of Canada](#), the Clerk of the Privy Council asked Public Service organizations to pursue excellence by being more collaborative, innovative, streamlined, high-performing and adaptable, and diverse. NRCan is meeting this call to excellence by continuing to pursue an ambitious transformation and renewal agenda that is aimed at modernizing the department's business practices, improving the way it delivers services for Canadians, and increasing the efficiency and effectiveness of its operations. To ensure success, the department is committed to strengthening its human capital, underpinned by a culture of values-based decision making, the diversity of its workforce, and linguistic duality. By getting the basics right, NRCan will be successful in positioning itself for the future.

How to get there

To respond to this corporate context and deliver on its strategic priorities, the department has established four corporate priorities:

1. *Asserting our policy leadership,*
2. *Mobilizing our science and technology,*
3. *Transforming our business, and*
4. *Growing our human capital.*

These corporate priorities will also help NRCan respond to risks posed by financial uncertainties, aging infrastructure and workforce management, which could potentially affect the delivery of the department's programs and initiatives.

Successfully implementing the plan

Successful implementation of the commitments laid out in this plan depends on a collective understanding of the department's priorities for the years to come and on careful execution of both departmental and sectoral integrated business plans at all levels in the organization.

NRCan's success will ultimately be a reflection of each employee's work, based on a common understanding of where NRCan is going and its plan to get there.

Introduction

NRCan's Integrated Business Plan (IBP) 2013-16 provides a summary of key activities the department will focus on for the next three fiscal years in support of its vision: to improve the quality of life of Canadians by creating a sustainable resource advantage.

To achieve this vision, NRCan contributes to the achievement of three strategic outcomes:

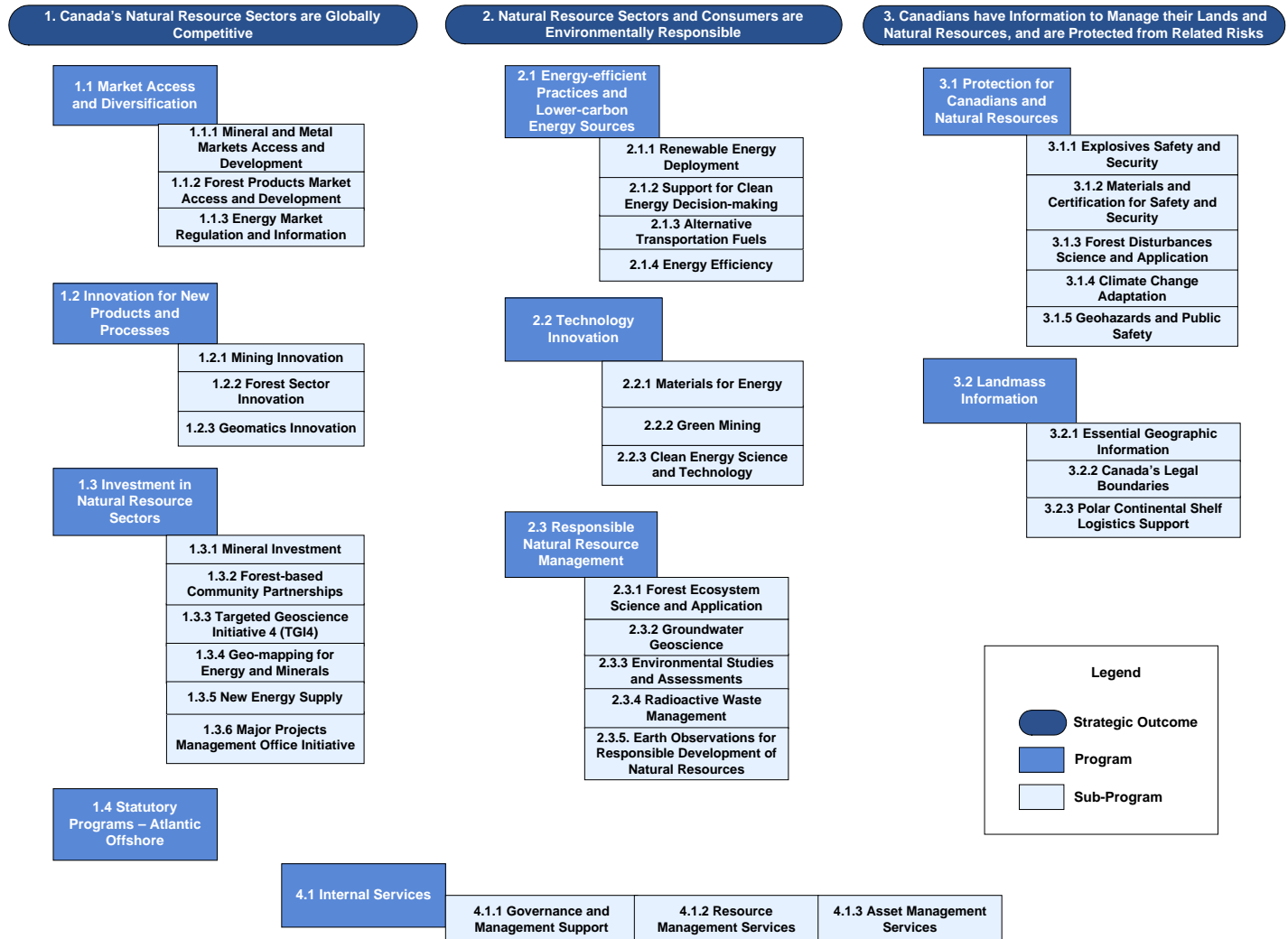
1. Canada's natural resource sectors are globally competitive;
2. Natural resource sectors and consumers are environmentally responsible, and

3. Canadians have information to manage their lands and natural resources, and are protected from related risks.

Through its strategic outcomes, programs and sub-programs – reflected in its Program Alignment Architecture (below) – NRCan contributes to three Government of Canada outcomes:

1. strong economic growth,
2. a clean and healthy environment, and
3. a safe and secure Canada.

2013-14 Strategic Outcomes and Program Alignment Architecture Natural Resources Canada



In 2011, NRCan identified four strategic priorities and four corporate priorities, which continue to provide focus to the department's activities.

Spotlight

NRCan's Strategic and Corporate Priorities

Strategic Priorities:

- Expand Markets and Global Partnerships
- Unlock Resource Potential Through Responsible Development
- Innovate for Competitiveness and Environmental Performance
- Leverage S&T Knowledge for Safety and Security Risk Management

Corporate Priorities:

- Asserting Our Policy Leadership
- Mobilizing Our Science and Technology
- Transforming Our Business
- Growing Our Human Capital

The commitments highlighted in this Integrated Business Plan are presented according to these priorities, with links to the applicable program of the Program Alignment Architecture.

Additional commitments can be found in the [various sector integrated business plans](#). We encourage you to read the NRCan Integrated Business Plan in conjunction with your own sector plan to see how the work of your team fits into the department's plans.

You may also wish to consult other departmental planning and reporting resources, which present greater detail on the department's plans and priorities:

- The [Plans and Performance Reports](#) website depicts NRCan's planning and reporting frameworks, provides program descriptions and explains how the department measures results. NRCan's [Program Alignment Architecture](#), [Performance Measurement Framework](#) and [Departmental Sustainable Development Strategy](#) can be accessed from this site.
- [Sectors' integrated business plans](#) present each sector's context, priorities, deliverables, risks, and financial and human resources.
- The [Report on Plans and Priorities](#) presents to Parliament the department's planned performance expectations for the current fiscal year.
- The [Investment Plan](#) for 2013-14 to 2017-18 provides a five-year outlook on investments and acquired services to support departmental

outcomes and program objectives. It identifies key projects, services and investment priorities over this period.

- The [Corporate Risk Profile](#) communicates the department's corporate-level risks, including a statement and analysis of each risk, a description of actions being taken to reduce these risks, and accountabilities for these mitigation actions.
- The [Departmental Security Plan](#) provides an integrated view of departmental security requirements as they relate to NRCan's priorities, programs, plans, and processes.
- The [Strategic Emergency Management Plan](#) enables a comprehensive, integrated and coordinated approach in all areas of emergency management including phases related to prevention and mitigation, preparedness, response and recovery.
- [Business Continuity Planning](#) collects the information required to minimize the impact of a service interruption and lists strategies that must be carried out to ensure an efficient and timely recovery of operations following a major disruption to NRCan business.

Throughout the year, as activities are implemented and completed, you can stay informed on the department's progress by accessing the following additional sources of information:

- [Quarterly Financial Reports](#) compare planned and actual expenditures for both the quarter and year to date.
- Quarterly financial and non-financial reviews outline progress against performance targets, enabling the Executive Committee to take corrective action as early as possible.
- The [Management Accountability Framework](#) annually assesses NRCan's management performance against different areas of management.
- Various [audits](#) and [evaluations](#) provide performance information as well as insights into potential improvements to management practices and program design.
- The [Departmental Performance Report](#) presents to Parliament the results achieved against the planned performance expectations set out in the corresponding Report on Plans and Priorities.
- The [NRCan Data Hub](#) gives access to commonly used key natural resource socio-economic data, analytical documents and information on socio-economic data management at NRCan.

Strategic Context and Priorities

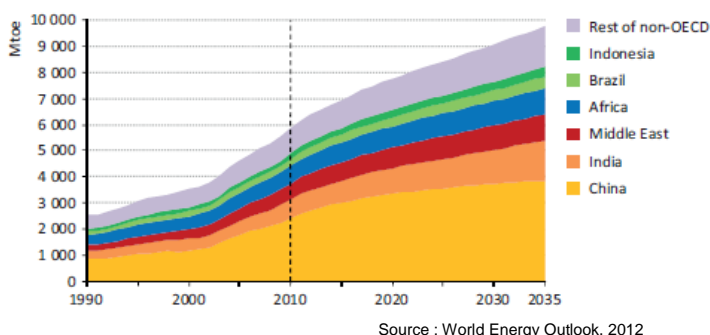
Global Context

The world is undergoing a period of significant geopolitical, economic and technological change, which will shape the future of both Canada and its natural resource sectors. Overall, the global economic outlook remains uncertain due in part to the continued economic challenges in Europe, America's fiscal constraints, political instability in the Middle East and a slowdown in the economies of China and India.

In the medium and long term, global markets are expected to be characterized by two-speed economic growth where emerging economies, particularly in the Asia-Pacific region, are outpacing developed economies, and driving the demand for energy and resources as well as actions to secure supply. The estimated growth for developed economies is projected to be a modest 2% annually while emerging economies, including China and India, are expected to grow at a faster rate of more than 5% per year.

Traditionally, the United States has been the primary destination for Canada's natural resource exports. However, demand for energy and other natural resources in the United States is flattening and is expected to weaken over the coming decade. At the same time, according to the International Energy Agency, China has already surpassed the United States to become the world's largest energy consumer, and India is set to become the third largest energy consumer by 2030 (see Figure 1). By 2025, China's urban population is projected to grow to

FIGURE 1. Non-OECD primary energy demand by region (in Megatonnes of oil equivalent)



almost 1 billion, contributing to a significant amount of global demand for natural resources and commodities.

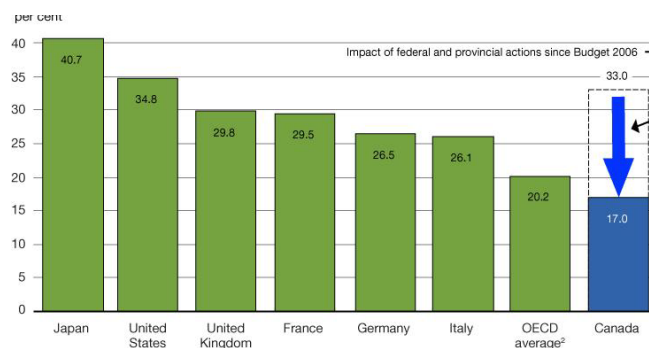
Growing demand for energy and natural resource commodities, and concerns over security of supply, will continue to push commodity prices higher. This will continue to spur demand for innovative products and

processes to increase efficiency in the production, transportation and use of natural resources.

Canada's Context

Currently, Canada presents the strongest fiscal picture among G-7 countries, with a sound banking sector, a vibrant financial community, expanding market access and low corporate taxes (see Figure 2). Canada is a market-oriented country that provides an open and competitive investment environment and is one of the best places in the world to do business.

FIGURE 2. Marginal Effective Tax Rate on New Business Investment, 2014



Canada is also fortunate to have one of the largest and most diverse endowments of natural resources in the world, and this sector forms the backbone of our economy and high standard of living. For instance, Canada's energy, mining and forest sectors accounted for:

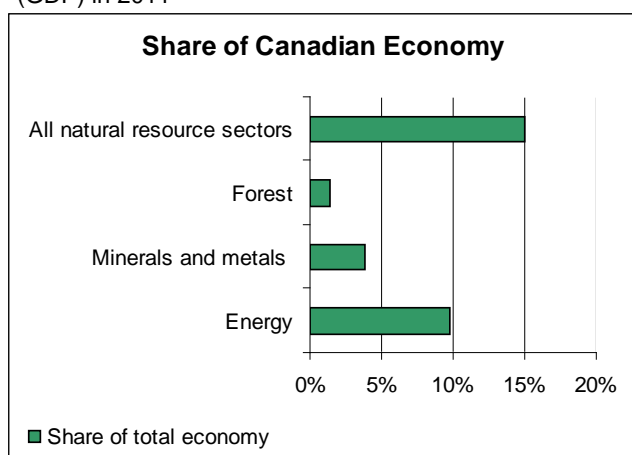
- directly and indirectly about 20% of Canada's nominal GDP in 2011, where natural resource sectors directly accounted for 15% of nominal GDP (see Figure 3) and additionally, through the purchase of goods and services, contributed to 4.4% of Canada's nominal GDP in other sectors (e.g., construction, machinery, professional services);
- more than 1.6 million direct and indirect jobs for Canadians;
- \$235 billion in exports, or 56% of Canada's total merchandise exports in 2011;
- 2/3 of rail and marine shipping in Canada;
- \$124 billion in new capital investments, or 1/3 of Canada's total capital investment intentions in 2012.

These economic contributions – along with Canada's reputation as a competitive, reliable and responsible supplier of natural resources to North America and the world – speak to the importance of the natural

resource sectors for Canada's prosperity and for the Government's policy agenda.

- Canada is among the world's top producers and exporters of a wide range of commodities (see Figure 4);
- Canada has an open, market-based economy that encourages competition and inward and outward investments: of note, every year on average natural resource firms account for \$30 billion in government revenue; and
- Canadian firms working at home and abroad provide a wide range of technologies, services and expertise in support of Responsible Resource Development.

FIGURE 3. The natural resource sectors directly accounted for 15% of Canada's nominal gross domestic product (GDP) in 2011



Source: NRCan Data Hub, 2012

Areas of Focus to Maintain Competitiveness

Canada must continue to take concrete steps to remain a key player in natural resource development, processing and exporting in the face of changing global demand. In particular, Canada must adapt to shifting markets for its natural resources – most significantly, shrinking energy import demand from Canada's traditional energy export market, the United States. It is imperative that Canada continue to place a high priority on efforts to diversify markets and products and enable access to global markets, particularly in the fast-growing Asia-Pacific region. These efforts are supported by the Government's plan for Responsible Resource Development which will improve the predictability and timeliness of the review process for major projects, reduce overlap and duplication with provincial jurisdictions, strengthen environmental protection and enhance consultations with Aboriginal people. To succeed over the medium and long term, Canada has a number of key challenges to address, including promoting market diversification and access, encouraging investment, ensuring world-class

environmental protection, developing the necessary infrastructure, building partnerships and engagement, advancing innovation, adapting to a changing climate and ensuring adequate labour and skills in the natural resource sectors.

FIGURE 4. Canadian Production of Key Commodities

	Global Production Rank	Percent of Global Production
Energy Sector		
Hydroelectricity	Third	11.0%
Natural Gas	Third	4.7%
Petroleum (crude oil)	Sixth	3.8%
Electricity	Sixth	3.0%
Coal	Thirteenth	0.9%
Minerals and Metals Sector		
Potash	First	30.3%
Uranium ¹	Second	16.7%
Cobalt	Second	7.3%
Aluminum	Third	6.7%
Nickel	Fourth	11.1%
Diamonds ²	Fourth	8.2%
Zinc	Fifth	5.3%
Gold	Seventh	4.1%
Copper	Ninth	3.4%
Iron Ore	Ninth	1.3%
Silver	Eleventh	2.9%
Coal	Thirteenth	0.9%
Forest Sector		
Newsprint	First	13.6%
Softwood Lumber	Second	13.1%
Wood Pulp	Second	11.0%

Source

Energy: NRCan, *Energy Markets Fact Book*

Minerals and Metals: US Geological Survey, 2011 preliminary data

Forest: NRCan, *Important Facts on Canada's Natural Resources, 2011* (NRCan)

Notes

1 - Source: World Nuclear Association

2 - Gemstone and industrial diamonds combined, 2010 data

Market Diversification and Access

The United States has been the traditional destination for Canada's resources, accounting for 98% of our energy exports, 65% of forest exports and 53% of minerals and metals exports. With US resource imports expected to level off, and natural resources demand growth increasing from emerging economies, particularly those in the Asia-Pacific region, Canada must take action to diversify its natural resource export

markets. Through new strategies and relationships, Canada can maintain its position as a reliable global supplier and leverage its resource base to seize export opportunities in fast-growing economies, while maintaining a strong relationship with the United States.

Encouraging Investment

Over the next decade, current and planned investments in the mining and energy sectors have the potential to be as much as \$650 billion in more than 600 major projects in communities across Canada. To ensure Canada realizes its natural resource potential, the Government is committed to creating the right conditions to secure and advance Canada's place as a global natural resource leader, creating jobs and wealth for all Canadians. Important aspects in this equation include attracting foreign investment that is in the best interest of Canada and ensuring that two-way trade and investment between Canada and other countries can take place in a secure, stable manner. To this end, the Government continues to take steps to ensure Canada remains an investment destination of choice, with the lowest overall tax rate on new business investment in the G-7 and a world-renowned banking system. The Government has also made important advancements on Canada's foreign investment regime, including clarifying how the Government applies the *Investment Canada Act* and developing Foreign Investment Promotion and Protection Agreements.

Infrastructure Development

Enabling infrastructure – including pipelines, ports, rail and roads – is a key component in the strategy to develop Canada's natural resources and diversifying its markets. Infrastructure can open new regions to development (e.g., helping unlock vast resource reserves in Canada's North) and allow the movement of workers and materials. It can also support the needs of communities in remote parts of the country, enabling greater opportunities for jobs and economic growth. This is an important factor for many remote areas of Canada, which are demanding a portion of the benefits from resource development. Although project clusters are emerging in regions where infrastructure gaps persist, the heightened demand for resources is creating new infrastructure needs. The magnitude of investments in infrastructure required over the coming decades to support Canada's natural resource sectors will require both public and private sector investments.

Aboriginal Participation in Natural Resource Development

With 585 First Nations living on a growing land base of more than 3.5 million hectares, much of which is rich in

resources, the relationship between Aboriginal people and natural resource development is perhaps more relevant than ever before. Indeed, 64 out of the 65 projects under consideration by the Major Projects Management Office and the Northern Projects Management Office involve Aboriginal rights or interests. Enhanced Aboriginal participation in natural resource development will provide significant opportunities for Aboriginal Canadians to share fully in the jobs, economic growth and prosperity generated by resource wealth, while at the same time making substantial contributions to national and regional economies.

The Government recognizes that First Nations must be full partners in developing Canada's resources. Aboriginal people have a strong interest in major resource projects that may affect their rights and their communities, and seek assurances that development proceed with the highest standards of environmental protection. To this end, the Government is taking steps to enhance its approach to Aboriginal consultation, and ensure greater Aboriginal participation in resource development projects and the economic opportunities that come from them.

Advancing Innovation

Innovation is at the heart of Canada's prospects for growth and prosperity in the natural resource sectors. It is fundamental to increasing productivity, capturing new markets and enhancing competitiveness. For commodity-based industries that are often competing based on global commodity prices, innovation can create value-added products or increased cost-competitiveness in a highly competitive global market.

Responsible resource development and use require an ongoing quest for innovation to achieve economic and environmental benefits. Canadians expect that the development of natural resources is done responsibly and reflects current knowledge of our vital ecosystems to ensure health, safety, security and quality of life. Managing the full cost of resource use across the entire life cycle will become a more important factor for competitiveness over time. Improved environmental performance can lead to greater resource efficiency and to productivity gains through the use of new technologies.

The innovation system in Canada is based on cooperation between the public and private sector. For example, FPIInnovations works through a network of public and private partners to help the Canadian forest industry develop sustainable and innovative forest products. Similarly, joint investments in innovation for energy supply, distribution and use, advance innovation and improve the environmental performance of products and processes. Innovation will improve our environmental performance,

protecting Canada's natural heritage while helping us lower greenhouse gas emissions by 17% below 2005 levels by 2020. Furthermore, the information age we live in, and the need for society to access data and information, will continue to drive innovation. For example, in support of the Government's Open Data initiative, NRCan will lead the development of geospatial infrastructure, systems and data that will enable public organizations, corporations and citizens to use Canada's landmass information to make responsible decisions related to resource development.

World-class Environmental Protection

Natural resource development can have significant impacts on the natural environment. Efforts are ongoing to ensure that Canada's natural resource endowment is developed responsibly to maximize value to Canada and Canadians. Moving forward it will be critical to ensure that environmental measures keep pace with forecasted growth in natural resource exploration and development.

To diversify and secure access to markets for Canada's natural resources, Canada needs to demonstrate a strong record and ongoing commitment to environmental protection and social responsibility.

The Government's plan for Responsible Resource Development has taken a number of steps to reduce the risks associated with resource development and transportation of Canada's natural resources to market. Specific initiatives are under way to address environmental protection concerns including strengthening response and liability regimes to be among the best in the world.

This also includes engaging in Canada and abroad to safeguard Canada's reputation as a global leader in responsible resource development. As part of this engagement, concerns about Canada's natural resource sectors must be better understood and misinformation countered with facts.

Climate Change and Adaptation

A changing climate presents both risks and opportunities for Canada's regions and natural resource sectors, and it is widely accepted that Canada will need adaptation measures to address them. Climate impacts and associated adaptation options vary widely across the country. Effective adaptation requires both understanding the nature of the impacts and bringing together key decision-makers to develop effective adaptive responses. An example of this is the collaboration conducted through the national Adaptation Platform.

Ensuring Adequate Labour

Over the next decade, the natural resource sectors will face a combined labour need of 236,000 to 391,000 new hires. Two thirds of these hires will be needed simply to replace retiring workers. Currently, major projects experience difficulties attracting workers with the right skills, which results in increased project costs due to rising wages and in potential project delays. Many skilled trades are in short supply, as natural resource industries compete with each other, as well as other sectors, for available talent. Efforts will be directed at increasing Canadians' awareness of potential careers in the natural resource sectors, and at increasing the labour market participation of under-represented groups such as women, immigrants, and Aboriginal people.

Given the geographic overlap between Aboriginal communities and major resource development projects, particularly in the North, significant opportunities exist for addressing some of the labour needs of Canada's natural resource sectors by increasing the job readiness and labour market participation of Aboriginal communities. Through the plan for Responsible Resource Development, the Government is advancing new measures to enhance engagement and consultation with Aboriginal communities to support greater participation in the employment and business opportunities created by resource development. As natural resource projects continue to be developed, ongoing efforts will be required to maintain and build relationships between Governments, Aboriginal communities and industry.

Hazards and Threats

Canada's risk environment includes a range of natural and human-induced hazards, threats to human health, and other risks. Examples of hazards are wildland and urban interface fires, floods, oil spills, the release of hazardous materials, transportation accidents, earthquakes, hurricanes and tornadoes. Public health threats include disease outbreaks and pandemics. Additional risks that could impact the safety of Canadians are major power outages, cyber threats and terrorist incidents.

Past emergencies in Canada demonstrate the challenges inherent in protecting the lives of Canadians and the critical infrastructure, property, environment, economy, and national security of Canada, its allies, and the international community. These challenges would be amplified if more than one were happening at the same time or if they were in close proximity.

Canadians expect that the federal Government will cooperate with provinces and territories, non-governmental organizations, and the private sector to respond to emergencies that may escalate from the

local or provincial and territorial level to the national level.

NRCan Strategic Priorities

The strategic priorities express *what* the department intends to do to support its vision. The strategic priorities were developed through a series of senior management meetings in fall 2011. They were designed based on an assessment of the risks and opportunities facing the organization in the upcoming years that could potentially impede NRCan from meeting its strategic objectives.

Among these risks, global economic trends, the competition for resources, barriers to investments and the need for hazards information could affect the development of natural resources. As such, NRCan identified these risks in its Corporate Risk Profile and developed the four strategic priorities to address them and guide the department.

The following section indicates what NRCan will do under each strategic priority. This section also links these priorities to risks faced by the department and provides a short explanation about what the department is trying to achieve and why this is a priority.

Expand Markets and Global Partnerships

What we are trying to achieve

Natural resource sectors have increased access to markets and new market segments, resulting in higher levels of the export and production of commodities and related value-added goods and services.

Why this is a priority

Market access for natural resource products generates significant benefits to Canadians. With slower-than-anticipated economic growth and increasing domestic supply of oil and gas in the United States, together with high demand for natural resources in fast-growing economies in the Asia-Pacific region, Canada must focus on expanding and diversifying its markets, for example by supporting the expansion of energy infrastructure, and on positioning itself as a reliable and responsible supplier worldwide.

Linkages to the Program Alignment Architecture

Strategic Outcome 1: Canada's Natural Resource Sectors are Globally Competitive

Program 1.1: Market Access and Diversification

Program 1.2: Innovation for New Products and Processes

Strategic Outcome 2: Natural Resource Sectors and Consumers are Environmentally Responsible

Program 2.1: Energy-efficient Practices and Lower-carbon Energy Sources

Risks being addressed

This priority addresses risks caused by uneven or uncertain growth that impact the global economy and that could influence the demand for Canada's natural resources and their price on the international market (e.g., the current European Union challenges). To reduce the risk that Canada's resource potential will not be fully realized, this priority focuses on seizing opportunities created by the demand for natural resources, the global competition to acquire them, and facilitating market access and diversification.

Plans for meeting the priority

NRCan works to expand existing markets, open new markets, address market access barriers and promote investment in Canada as well as Canadian investment abroad by engaging with key foreign governments, both bilaterally and multilaterally, and with non-governmental stakeholders.

Short-term commitments

- Advance the Government's objective to enhance market access and diversify energy markets, including through international engagement and communications to promote Canadian resources, address market barriers (e.g., European Union's Fuel Quality Directive) and brand Canada globally as a reliable and responsible resource developer. ([PAA 1.1](#))
- Work bilaterally to expand natural resource markets and strengthen key partnerships with growing economies in the Asia-Pacific region, such as China, Japan, Korea and India, through mechanisms such as the Canada-China Joint Working Group on Energy and the Canada-India Energy Dialogue. NRCan will be negotiating a memorandum of understanding on oil and gas with the Planning Commission of the Government of India. ([PAA 1.1](#))
- Pursue strategic bilateral engagement with the United States to strengthen the Canada-US energy relationship and advance Canada's interest (e.g., energy infrastructure), including through the Canada-US Energy Consultative Mechanism, the Clean Energy Dialogue and trilateral cooperation with the US and Mexico to reinforce North American energy security. ([PAA 1.1](#))
- Provide support and funding to forest product associations and work with other governments to carry out market development activities in emerging markets and in North America in order to enhance the competitiveness of Canada's forest sector. ([PAA 1.1](#))
- Implement the Government of Canada's Corporate Social Responsibility Strategy through partnerships with Foreign Affairs and International Trade Canada, the Canadian International Development Agency, the new Canadian International Institute for Extractive Industries and Development, and the Extractive Industries Transparency Initiative. ([PAA 1.3](#))
- Analyze international mineral resource policies, exchange on Canadian best practices in responsible mineral resource governance, and manage activities related to the Intergovernmental

Forum on Mining, Minerals, Metals and Sustainable Development and key bilateral mining relations. ([PAA 1.3](#))

- Ensure that Canada's trade objectives and perspectives are reflected in its trade negotiations with the European Union, Japan, India, South Korea, and the Trans-Pacific Partnership, among others. ([PAA 1.1](#))

Spotlight

Expansion of New and Emerging Markets

Ongoing promotion of Canadian wood products over the last five years has resulted in a 10-fold increase in softwood lumber exports to China and a 38% increase in exports to South Korea in 2012 alone. The current level of exports to these two markets is responsible for maintaining 4,400 jobs in sawmills, mostly in rural regions of Canada.

To build on these successes in 2013-14, NRCan and its partners will work with on-the-ground staff in China, South Korea and Japan to further promote Canadian wood products. It will also work with partners to explore the potential of new markets in India and the Middle East.

- Leverage multilateral fora to engage key partners and promote market access for Canada's natural resources and technologies, for example, through the Asia-Pacific Economic Cooperation or the International Energy Agency. ([PAA 1.1](#))
- Provide recommendations to the Minister or other Government departments supporting the identification, assessment, and monitoring of metals and minerals – rare earth elements and other materials – which could be, or could become, critical to Canada's economy and security. ([PAA 1.1](#))
- Implement phase two of a new high-security system for rapidly issuing Canadian Kimberley Process rough diamond export certificates in remote locations and facilitate market access for Canada's diamond industry. ([PAA 1.1](#))

Medium-term commitments

- Expand relationships with other countries in the Asia-Pacific region, assess necessary medium- to long-term infrastructure needs and continue to support market diversification through domestic and international engagement, a world-class marine and pipeline safety regime, an Aboriginal engagement strategy and options for necessary infrastructure.

Unlock Resource Potential Through Responsible Resource Development

What we are trying to achieve

Natural resource sectors have increased investment. Public and private sectors establish and implement leading world-class practices to mitigate the environmental impacts of natural resource development.

Why this is a priority

The responsible development of Canada’s natural resources is a critical contributor to our current and future prosperity. Over the next 10 years, planned investments of \$650 billion in more than 600 major energy, mining and forest sector projects across all regions will spur jobs and economic growth. Seizing this opportunity requires geoscience knowledge, investment, capital, energy and other infrastructure, an efficient and effective regulatory system, and meaningful consultation and engagement with Aboriginal peoples.

Linkages to the Program Alignment Architecture

Strategic Outcome 1: Canada’s Natural Resource Sectors are Globally Competitive

Program 1.1: Market Access and Diversification

Program 1.3: Investment in Natural Resource Sectors

Program 1.4: Statutory Programs

Strategic Outcome 2: Natural Resource Sectors and Consumers are Environmentally Responsible

Program 2.1: Energy-efficient Practices and Lower-carbon Energy Sources

Program 2.3: Responsible Natural Resource Management

Strategic Outcome 3: Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks

Program 3.2 Landmass Information

Risks being addressed

This priority addresses risks that Canada and NRCan could face if their efforts to improve the regulatory system for large resource projects do not satisfactorily address **barriers to investments** (e.g., from regulatory inefficiencies) or meet requirements for environmental and social responsibility. This priority also works toward mitigating the risk that NRCan’s S&T activities may not adequately target or address the key natural resource issues of tomorrow.

Plans for meeting the priority

To achieve this, NRCan will provide federal leadership by working with federal regulatory departments and agencies to implement the Government’s plan for Responsible Resource Development, and will provide scientific knowledge necessary to understand and identify areas that hold the most resource development potential.

Short-term commitments

- Implement the plan for Responsible Resource Development to advance system-wide transformation of the federal regulatory system, delivering predictable and timely project reviews, reducing regulatory burden, improving environmental protection, and providing for more consistent and meaningful Aboriginal consultations. ([PAA 1.3](#))
- Collaborate with provincial partners to improve the alignment of federal and provincial regulatory review processes for major projects. ([PAA 1.3](#))
- Provide project management and oversight of more than 70 major resource projects, including new energy infrastructure, to ensure timely and predictable reviews, and scientific and technical expertise to support environmental assessments

under the *Canadian Environmental Assessment Act*. ([PAA 1.3](#))

- Support the role of Canada’s Special Federal representative on West Coast Energy Infrastructure who will engage with Aboriginals in communities in British Columbia and Alberta to identify the factors required to build greater Aboriginal support for and engagement and participation in opportunities related to new energy infrastructure. ([PAA 1.3](#))
- Work in close collaboration with partner departments, provinces and key stakeholders to strengthen pipeline and marine safety regimes. ([PAA 1.3](#))
- Partner with the Canadian Northern Economic Development Agency and Aboriginal Affairs and Northern Development Canada to strengthen northern regulatory regimes and ensure a consistent approach to regulatory reviews both North and South of the 60th parallel.
- Complete formal agreements for the provision of the loan guarantee for the Lower Churchill River hydroelectric projects. ([PAA 2.1](#))
- Through the Targeted Geoscience Initiative 4 program, provide geoscience knowledge to support exploration, and deliver tools to help

uncover deep hidden mineral deposits, including in the Ring of Fire area and rare earth element deposits in the Northwest Territories and Quebec. ([PAA 1.3](#))

- Draw on the more than 600 publicly released geoscience maps and data sets generated through the Geo-mapping for Energy and Minerals (GEM) Program, which successfully completed its fifth year in 2012-13, to address priority location-based and theme-based geoscience issues that will help to unlock Canada's resource potential; release as many as 50 new geoscience maps and data sets. ([PAA 1.3](#))
- Conduct targeted resource assessments of key unconventional and northern Canada offshore basins, and develop a methodology to better predict Canada's shale petroleum resource potential by releasing of new reports, assessments, models and analytic procedures through workshops. ([PAA 1.3](#))
- Conduct nationally relevant forest ecosystems research, analysis and syntheses to better understand Canada's forest resource and provide science-based information on Canada's forest management practices to address domestic and international market requirements. ([PAA 2.3](#))
- Implement 5 Aboriginal Forestry Initiative contribution agreements with Aboriginal Affairs and Northern Development Canada and other federal departments to help Aboriginal organizations and develop business opportunities. ([PAA 1.3](#))
- Finalize Canada's submission to the United Nations Convention on the Law of the Sea to extend the country's sovereign rights on the Atlantic and Arctic continental margins. ([PAA 3.2](#))
- Work with provinces and territories to report to the Energy and Mines Ministers Conference on labour market imbalances in the natural resource sectors and best practices to address labour shortages. ([PAA 1.3](#))
- Contribute to increasing Aboriginal participation in major resource projects by enhancing the consistency, accountability, meaningfulness and timeliness of Aboriginal consultation for major projects, and by participating in the Federal Framework for Aboriginal Economic Development and its funding program, the Strategic Partnerships Initiative. ([PAA 1.3](#))
- Participate in major international trade shows to promote Canada as a destination for foreign investment, and publish documents supporting Canada's investment climate for mineral exploration and production such as a map of the

Top 100 Exploration Projects, information bulletins on production and trade, and an inventory of Advanced Mineral Projects. ([PAA 1.3](#))

Spotlight

Special Federal Representative on West Coast Energy Infrastructure

The participation of Aboriginal peoples and communities is essential to the successful development of Canada's natural resources. The Government has a role to ensure that potential impacts associated with resource development and new energy infrastructure being developed are appropriately addressed and that Aboriginal communities share the benefits of these developments. To this end, the Government has appointed Douglas Eyford as Special Federal Representative on West Coast Energy Infrastructure. He will engage with Aboriginal communities in British Columbia and Alberta to identify the factors required to build greater Aboriginal support and participation in opportunities related to the development of new energy infrastructure.

- Provide forest and geoscience information and timely expert advice that are scientific, technical and policy based for projects that require environmental assessments under the *Canadian Environmental Assessment Act*, including mining projects. ([PAA 2.3](#))
- Provide timely minerals and metals science and geoscience information and advice to support effective and efficient environmental assessment processes in northern Canada. ([PAA 2.3](#))
- Conduct mineral and energy resource assessments to inform boundary decisions for the establishment of new national parks. ([PAA 2.3](#))
- Provide a diversified database of geospatial information, including digital elevation data and critical infrastructure such as power lines. ([PAA 3.2](#))
- Provide governments, industries and Canadians with access to up-to-date and archived remote sensing imagery, remote sensing science, methods and value-added products, geodetic reference data and on-line tools for positioning including a modernized Height Reference System for Canada. ([PAA 3.2](#))
- Complete 100% of annual survey obligations as defined in land claim legislation and agreements for northern Canada and for First Nations Land Management and Additions to Reserve in southern Canada. ([PAA 3.2](#))

- Complete the expansion of the Polar Continental Shelf Program facility in Resolute in support of the establishment and training program of the Canadian Forces Arctic Training Centre. ([PAA 3.2](#))
- Collaborate with Aboriginal Affairs and Northern Development Canada and other partners on the development of the Canadian High Arctic Research Station, including the provision of logistics support. ([PAA 3.2](#))
- Process offshore transfer payments to both Nova Scotia and Newfoundland and Labrador as required under the Atlantic Offshore Accord Acts in a timely and accurate manner. ([PAA 1.4](#))

Medium-term commitments

- Explore and develop for consideration longer-term measures for regulatory efficiency and effectiveness.
- Test the concept of developing place-based mineral resource development blueprints through multi-stakeholder engagement. These blueprints will allow public and private actors to address in a more integrated manner the opportunities and barriers to resource development.
- Through interdepartmental work, understand the labour market challenges in the natural resource sectors to prioritize labour market activities and engagement with Aboriginal communities where major natural resource projects are under development.
- Work with federal partners, provincial governments and other interested stakeholders to address the challenges and support the responsible development of resource-rich regions in Canada, such as the Ring of Fire.

Innovate for Competitiveness and Environmental Performance

What we are trying to achieve

Natural resource sectors step up development and deployment of new products and processes as a result of NRCan information and initiatives. Energy consumers and producers adopt environmentally responsible products and practices. Stakeholders invest in research, development and demonstration to address environmental challenges.

Why this is a priority

Innovation is critical to both resource sector competitiveness and improved environmental performance, contributing to increased productivity, lower costs, value-added and new products, helping to meet environmental standards and regulations and to maintain a social licence for resource development.

Linkages to the Program Alignment Architecture

Strategic Outcome 1: Canada's Natural Resource Sectors are Globally Competitive

Program 1.1: Market Access and Diversification

Program 1.2: Innovation for New Products and Processes

Program 1.3: Investment in Natural Resource Sectors

Strategic Outcome 2: Natural Resource Sectors and Consumers are Environmentally Responsible

Program 2.1: Energy-efficient Practices and Lower-carbon Energy Sources

Program 2.2: Technology Innovation

Program 2.3: Responsible Natural Resource Management

Strategic Outcome 3: Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks

Program 3.2: Landmass Information

Risks being addressed

This priority addresses the risks that NRCan's actions to address [climate change](#) may be insufficient to meet Canada's environmental responsibilities and that [S&T](#) activities may not adequately address the key natural resource issues of tomorrow. It also mitigates the risk that an unsuccessful restructuring of [Atomic Energy of Canada Limited](#) could maintain significant exposure to financial risks for the Government of Canada and NRCan.

Plans for meeting the priority

NRCan will continue its work to enhance energy efficiency in the residential, commercial and institutional, industrial and transportation sectors, pursue S&T projects on energy supply, distribution and use, promote the development and use of innovative geomatics, geoscience and energy technology applications, support the production and use of alternative transportation fuels, and advance innovation in green mining.

Short-term commitments

- Implement the ecoENERGY Efficiency program with the aim of contributing 17-22 petajoules of energy savings, which is equivalent to the energy required by 165,000 to 215,000 households over one year (excluding transportation requirements). ([PAA 2.1](#))
- Support Canada's alternative fuel production capacity for renewable alternatives to gasoline and diesel through ecoENERGY for Biofuels program. ([PAA 2.1](#))
- Enhance international energy science and technology collaboration to address key issues facing the unconventional oil and gas sector, for example through the implementation of the Canada-Israel Energy Science and Technology Fund. ([PAA 2.2](#))
- Implement ecoENERGY Innovation Initiative projects with industry, academia and other Government departments and agencies to research, develop and demonstrate innovative solutions to environmental challenges in the energy sector. ([PAA 2.2](#))
- Support energy innovation by fostering strategic partnerships to develop the energy technologies necessary to increase Canada's business productivity and competitiveness, capture new markets, and provide safe, reliable and affordable energy to Canadians. ([PAA 2.2](#))
- Advance Canada's energy and technology interests at environmental and climate change-related international fora (e.g., United Nations Framework Convention on Climate Change and the Clean Energy Ministerial process). ([PAA 2.1](#))

Spotlight

Isotope Technology Acceleration Program

In 2013, NRCan will work with organizations in British Columbia, Alberta and Manitoba to increase the production of medical isotopes as part of the Isotope Technology Acceleration Program (ITAP). The aim of ITAP is to further advance the development of alternative technologies for the domestic production of commonly used medical isotopes (technetium-99m).

- Advance projects to improve the efficiency and safety of oil pipelines using new material technologies developed or validated by NRCan. ([PAA 2.2](#))
- Through programs including Investments in Forest Industry Transformation (IFIT), support the forest sector's efforts to be more energy efficient and generate more value from Canada's forests, assess the economic benefits of forest bioenergy and biorefining, and make targeted investments leading to non-traditional, high-value forest products and renewable energy. ([PAA 1.2](#))
- Advance the restructuring of Atomic Energy of Canada Limited's (AECL) Nuclear Laboratories by launching a competitive procurement process to bring in private-sector rigour and efficiencies into the management of its facilities and services under a Government-Owned Contractor-Operated model. ([PAA 1.1](#))
- Deliver reusable open data applications (e.g., Canadian digital elevation data, GeoGratis API) and tools to support the Federal Committee on Geomatics and Earth Observation, collaborative data frameworks (i.e., federal geospatial platform) as well as other applications leading to cost-effectiveness in technology use. ([PAA 1.2](#))
- Advance NRCan S&T signature projects, such as evaluating an innovative bitumen upgrading technology for potential commercialization, as part of a multi-year, multi-million dollar collaboration with the Japanese government and industry. ([PAA 2.2](#))
- Improve the security of supply of medical isotopes by investing in the development of alternative technologies through the Isotope Technology Acceleration Program (ITAP) in support of AECL's ceasing production of technetium-99m by 2016. ([PAA 2.2](#))
- Demonstrate key environmental technologies for green mining, including the feasibility of

developing productive agricultural land uses on mine waste. ([PAA 2.2](#))

- Present to industry stakeholders one advanced material technology to be implemented in new energy efficient vehicles produced in North America. ([PAA 2.2](#))
- Support the production of about 16.9 terawatt-hours of clean electricity with the ecoENERGY for Renewable Power and Wind Power Production Incentive programs. ([PAA 2.1](#))
- Conduct one demonstration project of an innovative new technology in backfill of underground mine openings. ([PAA 1.2](#))
- Provide advice to industry and policy makers on optimizing the value of forest fibre along the full value chain. ([PAA 1.2](#))
- Support, through the ecoENERGY Efficiency program, training sessions on energy efficient products and practices for 205,200 individuals in the transportation sector, 400 in the buildings sector, 500 in the housing sector, and 750 in the industrial sector. ([PAA 2.1](#))

Spotlight

ENERGY STAR Portfolio Manager

Putting energy management tools into the hands of Canadians helps them make informed decisions that improve energy efficiency, reduce greenhouse gas emissions, and increase the productivity and competitiveness of businesses. NRCan's Office of Energy Efficiency will soon launch a free online building energy management and tracking tool – the [ENERGY STAR Portfolio Manager](#).

NRCan, in partnership with the United States Environmental Protection Agency, is adapting the tool for Canada, its use could enhance the value of the country's \$750 billion building asset base.

- Through the ecoENERGY for Alternative Fuels program, support two codes and standards committees within the Canadian Standards Association working on developing installation codes for natural gas refueling stations and natural gas vehicles. ([PAA 2.1](#))
- Manage approximately 90 contribution agreements in renewable energy research and development and demonstration in carbon capture and storage technology; energy from renewable sources, including bioenergy; energy efficiency in buildings and communities; electrification of transportation; and environmental aspects of oil sands development. ([PAA 2.2](#))

- Complete standardized assessments and mapping of seven key, archetypal interprovincial aquifers, including their dynamics and vulnerability, to improve our understanding and the management of groundwater systems. ([PAA 2.3](#))

Medium-term commitments

- Explore the importance of energy innovation for unlocking the full potential of Canada's energy resources and knowledge.
- Continue efforts to improve energy efficiency in Canada by making houses, buildings and equipment more energy efficient through codes and standards; energy performance information more visible through labelling and benchmarking; and industry and vehicles more efficient through energy management standards and training.
- Continue to reduce greenhouse gas emissions under the Low Carbon NRCan (LoC) Initiative by implementing state-of-the-art energy efficiency approaches in NRCan's buildings.
- Lead the development of a Federal Geospatial Platform and geospatial infrastructure, systems and data to contribute to the collaborative Open Data initiative and facilitate responsible resource development decision-making innovation and competitiveness.

Leverage S&T Knowledge for Safety and Security Risk Management

What we are trying to achieve

NRCan is legally responsible for safely managing the prevention, mitigation, preparedness, response and recovery from natural and man-made hazards to the natural resource sectors, infrastructure and human health. To this end, public, private sectors and academia use trusted, accurate, Government of Canada geoinformation for decision making and research.

Why this is a priority

NRCan has an important role in preparing for and managing threats and emergencies associated with natural and man-made hazards, including earthquakes, forest fires, and industrial incidents, and it conducts research to enhance explosive safety and security. Furthermore, NRCan plays a key role in providing up-to-date information on Canada's natural resources and landmass through Open Government, a whole-of-government initiative to ensure Canadians have easy access to the right information, in the right format, in a timely manner.

Linkages to the Program Alignment Architecture

Strategic Outcome 2: Natural Resource Sectors and Consumers are Environmentally Responsible

Program 2.3: Responsible Natural Resource Management

Strategic Outcome 3: Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks

Program 3.1: Protection for Canadians and Natural Resources

Program 3.2: Landmass Information

Risks being addressed

This priority addresses emergency management-related risks, such as **terrorism in North America** and a **major industrial incident** that could impact the natural resource sectors and/or the flow of natural resources. It also addresses **capacity**-related risks that NRCan could face in the event of an emergency, such as effective and timely response and dissemination of information in the event of civil emergencies. Finally, the priority contributes to mitigating the risk associated with **climate change**, including the risk that Canada and the natural resource sectors will be impacted by climate change should they not be able to adapt.

Plans for meeting the priority

Through collaboration with federal, provincial and territorial partners as well as academia, industry stakeholders and key international organizations, NRCan will continue to drive innovation of the Canadian Geospatial Data Infrastructure, ensuring that high-value, open, standards-based geodata and geoscience such as the Canadian digital elevation data, publications, topographic maps and other products are available to Canadians. The department will also deliver reusable open data applications (e.g., GeoGratis API) and tools, leading to cost-effectiveness in technology use.

NRCan will also continue to provide services, information and expertise in support of public and private sector disaster risk management.

Short-term commitments

- Acquire, integrate and disseminate geospatial and geoscience information to support land use management and emergency response, including digital mapping and elevation data and S&T publications. ([PAA 3.2](#))
- Implement tools for the assessment of earthquake risk at regional and national scales and upgrade national- and regional-scale seismic and Global Positioning Systems data to improve real-time earthquake and tsunami alerting. ([PAA 3.1](#))
- Deliver a national climate change Adaptation Platform to support knowledge exchange and tools for climate change adaptation for regions and resource sectors. For the forest sector in particular, develop an adaptation toolkit on sustainable forest management in a changing climate. ([PAA 3.1](#))
- Conduct Canada's first-ever submarine landslide hazard assessment to mitigate the impacts of such hazards on coastal communities. ([PAA 3.1](#))
- Host the Conference of the International Boreal Forest Research Association, including discussions on boreal forest health issues across the circumboreal north. ([PAA 2.3](#))
- Provide remote sensing methods, tools and data for regulatory compliance monitoring and cumulative environmental impact assessment, including for the Alberta oil sands region. ([PAA 3.2](#))

- Characterize the effects of a changing climate on permafrost to inform northern infrastructure development. ([PAA 3.1](#))

Spotlight

Federal Geospatial Platform

NRCan will continue to co-lead 20 other federal departments and agencies in the creation of the Federal Geospatial Platform. This platform will provide integrated and comprehensive geospatial information, including socio-economic, geological and environmental data. Users will be able to visualize multiple layers of integrated, multidisciplinary geospatial information on a common base map. Data made available through the Federal Geospatial Platform will support federal decision making and stimulate innovation and productivity in Canada's digital economy. A priority in 2013-14 will be the development of a project charter and implementation plan.

- Conduct inspections on explosives safety and security and maintain a level of 70% of inspection reports on explosives that are rated satisfactory or better. ([PAA 3.1](#))
- Provide simulated data, application methods and expertise to create efficiencies in areas such as monitoring ice flow or forecasting agricultural management strategies based on data collected from advanced satellite missions. ([PAA 1.2](#))
- Issue a contract and start work on the construction of the Port Granby Long-Term Waste Management Facility to mitigate environmental impacts. ([PAA 2.3](#))
- Prepare and implement the next phase of the Nuclear Legacy Liabilities Program. ([PAA 2.3](#))
- Produce forest-related carbon and greenhouse gas emission estimates to be used in Canada's 2014 greenhouse gas National Inventory Report. ([PAA 2.3](#))
- Enhance the Canadian Wildland Fire Information System by further developing the fire Monitoring, Accounting and Reporting System, which will estimate national wildfire burned areas and carbon emissions from fire, and will contribute to knowledge and reporting commitments (national and international) related to forest carbon accounting. ([PAA 3.1](#))
- Deliver knowledge and tools to decision makers to mitigate risks and impacts of high-profile forest pest infestations (both native and exotic) in improving understanding of the pathways of exotic species movement, assessing economic and

ecological impacts of pest epidemics, and improving predictive models and monitoring systems of pest threats. ([PAA 3.1](#))

- Issue 1,700 explosives licences and certifications. ([PAA 3.1](#))
- Maintain at 4,800 the number of individuals who are certified to perform non-destructive testing to a national standard. ([PAA 3.1](#))
- Undertake research projects to develop countermeasures for offshore oil spills, which will lead, amongst other things, to the development of oil spill response strategies tailored for the Arctic environment. ([PAA 2.2](#))
- Strengthen collaboration and partnership between NRCan's Corporate Emergency Management Program and Public Safety Canada. ([PAA 3.1](#))

Spotlight

R&D on Blast Effects of Explosives

NRCan's Canadian Explosives Research Laboratory is conducting controlled explosions to determine the effect of a blast on critical infrastructure. These [experiments](#) will help determine the blast resistance of structures and reduce potential damage and casualties.

Medium-term commitments

- Explore innovation in geospatial infrastructure, systems and data to allow NRCan – through collaboration with federal, provincial and territorial partners as well as academia and industry stakeholders – to continue to drive innovation of the Canadian Geospatial Data Infrastructure, ensuring the development and dissemination of high-value, open, standards-based geodata to support key economic, social and environmental priorities and to promote competitiveness.

Corporate Context and Priorities

The previous section presents *what* the department intends to do to advance its strategic priorities in support of its vision. This section focuses on *how* the department will advance its corporate priorities.

To succeed, NRCan must ensure that its resources are aligned to its priorities, that its processes are as efficient as possible, and that sound governance is in place to ensure accountability.

Corporate Context

Sound Management Frameworks, Systems and Practices

NRCan has in place sound management frameworks, systems and practices and must continuously look at ways to further increase the effectiveness and efficiency of its operations.

In recent years, the department has taken steps to strengthen management. The department has revised its [governance structure](#), updated its [Program Alignment Architecture and Performance Measurement Framework](#), adopted an [Integrated Risk Management Policy Framework](#), implemented a [Project Management Framework](#), recently created an [Investment Planning Framework](#) and is continuously improving its [Corporate Risk Profile](#). NRCan has developed a new code on [Values and Ethics](#), defined core [NRCan Competencies](#) and implemented SAP, a new financial, material and project management system. Efforts have also been devoted to enhancing management practices, including through the publishing of the [Role of the Manager paper](#) and engagement of managers in monthly “toolkit” sessions to equip them with the appropriate tools and knowledge.

NRCan’s excellence in management has been recognized by the Treasury Board Secretariat and other central agencies: for the fourth consecutive year, NRCan has received a series of strong and acceptable ratings on its management report card, the [Management Accountability Framework](#).

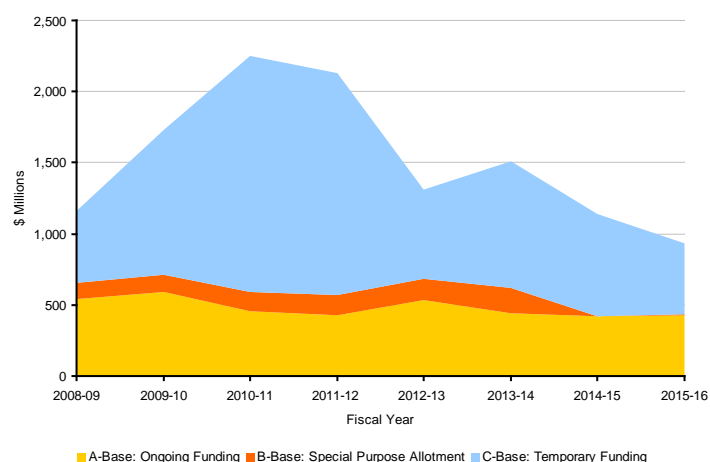
Financial Context

NRCan’s total budget for fiscal year 2013-14 is \$1.5 billion, excluding statutory payments.

As announced in Budget 2012, NRCan’s contribution to the Government’s deficit reduction action plan is \$112 million annually – or 10% of its review base – to be achieved by April 1, 2014 (see figures 5 and 6).

At the same time, Budget 2012 funded a number of targeted investments that will help meet the department’s priorities in the areas of responsible resource development, forest sector transformation, medical isotope technology and earth observation.

FIGURE 5. NRCan budget trend



NRCan is projecting over the three-year planning horizon to return to 2008-09 funding levels. This change is due to various factors, including the implementation of the 2009 Strategic Review, the sunsetting of various Economic Action Plan initiatives, the transfer of IT-related responsibilities and resources to Shared Services Canada, the consolidation of pay and benefits services, and the implementation of Budget 2012.

Managing the transition and ensuring the long-term financial sustainability of NRCan are paramount responsibilities of management.

People Context

NRCan has a diverse and highly skilled workforce. As of March 31, 2013, NRCan employed almost 4,000 employees, most of whom are in the Scientific and Professional (44%) and Administrative and Foreign Service (34%) categories. Its employees work in offices and laboratories from coast to coast to coast. About half of NRCan’s 94 occupied facilities are in the National Capital Region, with the remainder distributed in the following regions: Atlantic, Quebec, Ontario, Western, Pacific, and Northern Canada (see Figure 7).

FIGURE 6. NRCan budget by fiscal year and type of funding

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
A-Base: Ongoing Funding	544,760,668	591,935,567	455,462,093	430,463,991	532,545,431	442,456,682	420,865,581	429,262,159
B-Base: Special Purpose Allotment	108,258,402	122,673,000	135,195,500	136,837,000	151,652,000	174,097,028	1,897,028	1,897,028
C-Base: Temporary Funding	507,830,090	1,012,655,000	1,663,112,817	1,562,141,474	626,075,759	896,063,528	714,695,615	504,131,194
Total Budget (excluding Statutory)	1,160,849,160	1,727,263,567	2,253,770,410	2,129,442,465	1,310,273,190	1,512,617,238	1,137,458,224	935,290,381

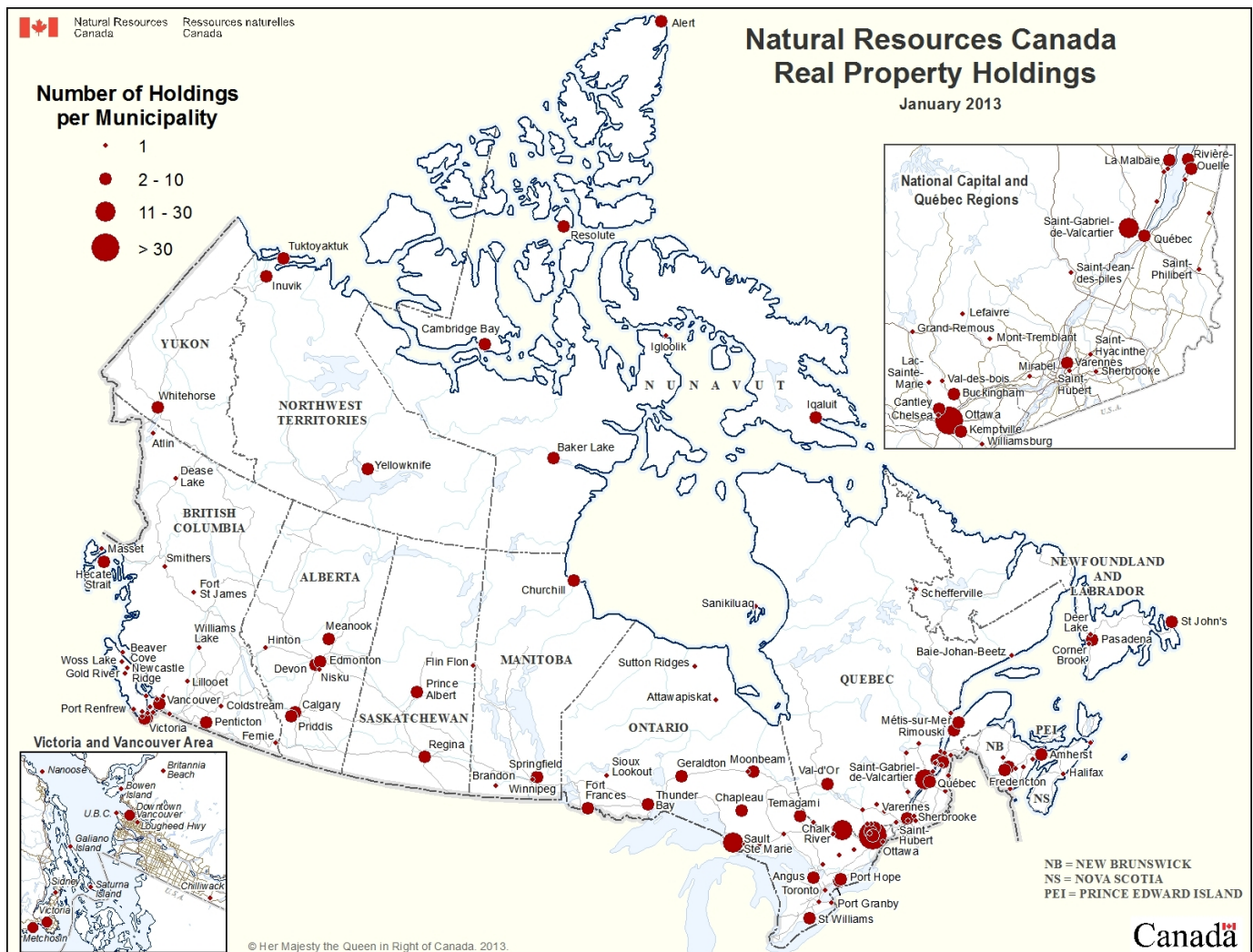
NRCan’s workforce composition reflects the changing demographics in Canada, with 59% of employees over the age of 45. While 11% of employees are eligible to retire as of December 31, 2012, this number is expected to rise to 26% by 2016-17. These departures could have an impact on leadership capacity, and create gaps in skills and competencies.

Attrition, including retirements, has helped the department adjust to new fiscal realities. However, other workforce adjustment measures were initiated to achieve the required savings. NRCan remains committed to approaching this period of adjustment with sensitivity, leadership and innovation, guided by Public Service values.

A key challenge and primary responsibility for the department is to manage the human resource impacts of the current transition to a smaller organization. Impacts have been felt across all regions, and across all of the department’s functions: policy, science, program delivery and internal services.

In January 2012, the department initiated a restructuring of the Corporate Management and Services Sector and the Public Affairs and Portfolio Management Sector. Some of the restructuring was linked to larger federal initiatives, such as the consolidation of pay and benefits functions in

FIGURE 7. NRCan Real Property Holdings, January 2013



Miramichi, New Brunswick. Approximately 105 encumbered positions will ultimately be eliminated as a result of corporate restructuring.

A second workforce adjustment process was initiated in April 2012 following Budget 2012. About 320 positions will be eliminated upon completion of the process.

In total, more than 580 employees were affected by workforce adjustment under restructuring, Budget 2012 and other management actions. As of March 31, 2013, just over 230 of these employees had been retained, mainly through selection for retention processes. Through the department-wide matching exercise (both to vacant positions and positions available through alternation internally and in other Public Service organizations), NRCan was able to place more than 100 of the remaining employees and provided transition support to almost 150 who chose to leave the Public Service. The department is continuing to seek employment opportunities for employees who wish to remain in the Public Service through a departmental priority clearance process, and the Public Service-wide Priority Information Management System, taking into consideration retraining possibilities.

Values and Ethics, Official Languages and Employment Equity

NRCan's success is dependent on the diversity of its workforce, respect for both official languages, and values-based decision-making. Three foundational elements guide NRCan's approach in these areas.

The [NRCan Values and Ethics Code](#) outlines the values and behaviours expected of all NRCan employees. The department will pay particular attention to building awareness around the Values and Ethics Code, which addresses ethical risks and potential conflict situations that the department or its employees could face.

The [Official Languages Action Plan 2011-14](#) reflects the department's commitment to proactively fulfill its legal obligations. It outlines activities to improve in all aspects of the *Official Languages Act*, such as service to the public, language of work, promotion of linguistic duality, and development of official language minority communities. These actions will help respond to 2011 Public Service Employee Survey results indicating that francophone employees do not feel free to prepare written documents or to participate in team meetings in the official language of their choice.

The [Employment Equity Action Plan 2012-15](#) reflects that despite progress in increasing representation in employment equity groups, persistent gaps remain. Of particular concern are representation gaps for women

in the research scientist group, visible minorities in the land surveyor group, persons with disabilities in the economics and social sciences group, and Aboriginal peoples in the executive group. Key areas of focus are strengthening governance and accountability, integrating a diversity lens into talent management, fostering career options for women in S&T, increasing efforts to prevent harassment and discrimination, and advancing the Wellness and Disability Management Initiative.

Skills and Competency Mix

As noted, NRCan has a highly specialized workforce, notably in the areas of science and technology. The impact of expected retirements and the changing nature of NRCan's scientific work in support of Government priorities need to be effectively managed to maintain the department's scientific capability and knowledge base. It is recognized that specialized competencies and knowledge take years to develop and, in many cases, cannot be acquired directly from the private sector. Identifying the skills and competencies required and areas where gaps may occur, as well as knowledge transfer and management, will be a key focus for the coming years.

Attracting Employees with the Right Mix of Skills

Given the specialized nature of the expertise required and the length of time needed to develop it, a key risk is not being able to attract employees, or losing them, due to workforce or workplace issues.

To revitalize its workforce, the department will continue to use the various federal recruitment programs targeting students and researchers, including the Federal Student Work Experience Program, the Research Affiliate Program, the Post-Secondary Co-op/Internship Program, the Policy Analyst Recruitment and Development Program, and the NSERC Visiting Fellows Program. Social media, such as Twitter and LinkedIn will also be used to promote job opportunities.

Acting upon the results of the 2011 Public Service Employee Survey

Results from the [2011 Public Service Employee Survey](#) (PSES) were positive overall, indicating that the department continues to be strong in the areas of employee engagement, encouragement to innovate, positive employee relations with managers, and a respectful workplace.

However, some areas require continued attention, including:

- harassment, discrimination and informal conflict in the workplace,
- workload and overtime,
- official languages, and
- career development.

In 2013-14, the department will place emphasis on career development and prevention of harassment and discrimination, where the focus will be on building awareness and promoting a respectful workplace.

Talent Management, Transformation and Renewal

The focus of the coming years will be to engage and mobilize the talent of a smaller workforce that is diverse, high-performing and adaptable, and able to work in collaborative, innovative and streamlined ways. To achieve these objectives, NRCan's approach to talent management will be to develop employees at all levels, ensure it gets the basics of management right, support good people management practices, and create an environment where employees feel engaged.

In support of a healthy and safe workplace, NRCan created the Workplace Health Division within the Corporate Management and Services Sector. This group brings together several functions under one umbrella to foster a safe, healthy and motivating workplace, promoting a respectful culture and contributing to the effectiveness of NRCan.

Performance management is the foundation of effective talent management. In encouraging ongoing conversations between employees and managers on performance, learning and career development, NRCan will foster an environment that optimizes the contributions of each employee.

Corporate Priorities

The four corporate priorities give direction to the department's management agenda. The following section indicates what NRCan will do under each corporate priority and links these priorities to risks faced by the department. It also provides a short explanation about what the department is trying to achieve and why this is a priority.

Asserting Our Policy Leadership

What we are trying to achieve

To provide proactive and timely evidence-based advice to the Minister and Government of Canada on how to advance policy priorities pertaining to the development of Canada's natural resources and to assess policy and program options for doing so. To ensure that key stakeholders and partners are engaged and aware of NRCan perspectives.

Why this is a priority

In a rapidly changing policy environment, NRCan must respond effectively to these changes by being nimble and adaptable, leveraging existing and new networks and collaborative mechanisms, and practising strategic policy analysis and foresight – in the short, medium and long term – to respond to, align with and influence policy decisions and direction.

Risks being addressed

This priority contributes to mitigating the risks related to the department's [capacity to manage](#) and respond to changes in its funding profile, which could affect its program delivery capability and performance.

Plans for meeting the priority

To achieve this priority, NRCan will focus on leveraging partnerships, strengthening collaborative mechanisms, grounding advice and decision-making in sound science and economic evidence and analysis, engaging in medium-term policy research and analysis, and implementing a strong policy planning approach.

Short-term commitments

- Consider opportunities within the Government's current agenda to advance medium-term perspectives on the global economy and natural resource development (e.g., market diversification, energy innovation, investments and labour, infrastructure).
- Develop and present Budget 2014 proposals to the Minister in consultation with portfolio agencies, grounding advice and recommendations in sound economic and science evidence.
- Assert horizontal policy leadership in advancing policy, legislative and regulatory proposals through interdepartmental collaboration (e.g., Major Projects Deputy Ministers Committee, ADM-level Federal Committee on Geomatics and Earth Observation).
- Assert horizontal policy leadership in advancing medium-term policy issues through DM-level committees (Climate Change, Energy and Environment; Economic Trends and Policies; Global Trends Foreign Affairs and Defence; and the Social Trends Policies and Institutions).
- Update the Portfolio Management Framework to strengthen portfolio coherence as well as support the portfolio agencies in enhancing policy and program coordination to advance Government priorities, ensure accountability, and maintain good governance.
- Further develop analysis on opportunities to advance energy innovation (including input to the Deputy Ministers Committee on Climate Change, Energy and the Environment).
- Implement the five-year evaluation plan using a risk-based approach.
- Develop a strategic framework to support Aboriginal participation in natural resource development in collaboration with other departments.

Mobilizing Our Science and Technology

What we are trying to achieve

Government of Canada investments in S&T are informed and responsive to the needs identified by a wide range of stakeholders. The conduct of S&T activities builds on the comparative advantages of the stakeholders of the innovation system.

Why this is a priority

NRCan's effectiveness involves the entire innovation system: industry, universities and other levels of government. It operates in the global context, and globalization directly impacts how it mobilizes science and how the department innovates.

Risks being addressed

This priority contributes to mitigating the risks associated with NRCan's capacity to undertake S&T activities that address the key natural resource issues of tomorrow.

Plans for meeting the priority

NRCan will continue to expand science-policy integration through outreach, horizontal task teams and the Policy-Science Integration Community of Practice (PSICoP), and will seek to increase both the external and internal visibility of its S&T.

Short-term commitments

- Identify opportunities to establish new domestic and international S&T partnerships.
- Strengthen corporate S&T governance and accountability through the S&T Board chaired by the Deputy Minister.
- Develop a new, more proactive departmental approach to manage intellectual property for greater impact.

- Document and track NRCan's Signature S&T projects to better assess and convey the relevance, quality and impact of NRCan S&T.
- Implement the S&T publications policy to enhance the awareness of, access to and use of NRCan S&T in policy advice and decision making.
- Establish new organizational structures, such as PSICoP and horizontal task teams to enhance science-policy integration and share best practices.
- Provide online services and tools to access free, high-quality data in a simple and open format, and integrate databanks of geoscience information via a one-stop geoportal.

Spotlight

International Energy Science and Technology Collaboration

NRCan's new Canada-Israel Energy Science and Technology Fund will help strengthen science and technology collaboration in energy between the two nations. Round table discussions have already begun, bringing together Canadian and Israeli researchers, innovators and companies to identify areas for collaboration, primarily in unconventional oil and gas. A request for proposals will be issued in 2013 to solicit projects, followed by project selection, implementation and monitoring.

Spotlight

S&T Publications Policy

The recently launched online [S&T Publications Policy](#) system will make the work of both policy analysts and scientists in the department easier by providing a one-stop shop to hundreds of S&T publications. This will be a key tool for better science-policy integration in the department.

Medium-term commitments

- Advance and adopt a corporate-wide approach to S&T priority setting, impact measurement and Intellectual Property management.
- Develop an S&T report to highlight the impact of NRCan's S&T, as well as a progress report on the implementation of NRCan's S&T strategy.

Spotlight

Signature S&T Narratives

To better understand the impact of NRCan's S&T investments and how they support Government priorities and benefit Canadians, the department has developed 23 Signature S&T narratives. These narratives describe NRCan's S&T activities, financial expenditures, role in S&T delivery and the partners it works with. Capturing 80 to 90% of the department's S&T activities, the narratives are aligned with the Program Alignment Architecture (PAA) and provide a solid foundation for the accountability of NRCan's S&T. Ultimately, the narratives will facilitate effective management and help to guide S&T priority-setting, the development of performance measures and communication of NRCan's science to Canadians.

Transforming Our Business

What we are trying to achieve

NRCan operations and internal processes are nimble, adaptable and responsive to policy, S&T and program delivery needs. Opportunities to increase the effectiveness and efficiency of NRCan operations are identified and implemented. A rating of “acceptable” or “strong” in the areas of management assessed under the Management Accountability Framework.

Why this is a priority

NRCan’s objective is to modernize business delivery, with a focus on ensuring the effectiveness and efficiency of its services and operations while ensuring sound stewardship of resources. The department’s efforts are part of a Government-wide pursuit of excellence across core functions. To identify improvements and transform its business, the department is engaging stakeholders internally and externally. This includes improving information management and technology (IMT) strategic planning and governance, improving electronic records and document management, and refining back-office business processes.

Risks being addressed

This priority contributes to mitigating the risks associated with the department’s **capacity to manage** and respond to changes in its funding profile, which could affect its program delivery capability and performance. It also addresses **information management and technology** risks, for example, that NRCan may not have an IT infrastructure that is aligned to its business needs and/or that it may not be able to meet central agency or legal requirements, including protection from cyberthreats.

Plans for meeting the priority

NRCan will continue implementing its ambitious transformation agenda by focusing on key initiatives under three main themes: advancing an enterprise approach; optimizing departmental efforts and resources; and collaborating internally to improve results. Each initiative involves significant change management, effective internal communications (the Internal Communications Advisory Group contributes usefully to this), and disciplined project management.

Short-term commitments

- Optimize IMT governance and investments across the department through the development of an IMT Strategic Plan.
- Finalize the design of the GCDocs project to establish a new platform for electronic records and document management, including an engagement strategy to support department-wide implementation.

- Transform NRCan’s web presence into a consolidated, smaller website that will offer Canadians more relevant, useful content, and implement stronger governance and scheduled web content review.

Spotlight

Web Accessibility

NRCan is transforming its Internet site into a more consolidated and user-friendly resource, which will ultimately feed into a single entry point for Government of Canada web information. Various features will make it easier for employees and the public to find and access NRCan’s web content. In 2013-14, NRCan will complete full implementation of the Standards on Web Accessibility and Usability and deliver a new, user-tested structure for a consolidated NRCan web presence.

- Improve internal business processes by increasing the efficiency and effectiveness of service and operations in various areas, including the travel booking and expenditure management tool, international travel approval, HR staffing, procurement, SAP training, finance and invoice procedures.
- Continue the Government-wide corporate services transformation and increase efficiency, standardization and consolidation of service delivery, in line with the Government of Canada efforts to reduce internal and external service costs, including implementation of the Common Human Resources Business Process initiative to revitalize human resource services and systems through standardization of processes and tools.

Spotlight

GCDocs

In spring 2013, NRCan will begin to address the change management aspects of implementing GCDocs by helping employees to implement IM best practices (e.g., managing email, eliminating duplication on shared drives) and ensuring everyone completes the free online Canada School of Public Service course IM-PACT (Information Management – Personal Awareness and Capacity Test) to better understand their obligations when it comes to managing information. The roll-out of GCDocs will begin in winter-spring 2014. Once completed, the system will make it easier for employees to store, access and share documents throughout the department. Key features include automated version control and the disposition of documents, which will result in reduced duplication of effort. Employees will be provided with training.

- Implement Government-wide efficiency measures for internal services.
- Implement the 2013-14 to 2017-18 Investment Plan to ensure greater alignment of resources with priorities and identified risks, supported by sound governance.
- Continue implementation of Budget 2012 savings measures.
- Implement the Departmental Security Plan to close gaps identified in the latest risk analysis.
- Strengthen the monitoring of risks and test the effectiveness of mitigation strategies.
- Continue the transformation of internal services, including electronic payment and invoicing, the next phase of SAP implementation, and PeopleSoft enhancements.

Medium-term commitments

- Assess NRCan's Corporate Funding Model and identify options for its redevelopment.
- Review corporate services costing methods and structures.
- Implement the Common Financial Management Business Process initiative as part of the Government-wide corporate services transformation.
- Fully implement GCDocs.
- Implement Web standard on Interoperability.
- Implement Treasury Board Secretariat Recordkeeping directive.
- Enhance the responsiveness, efficiency and sustainability of federal infrastructure through the Federal Geospatial Platform while improving interdepartmental collaboration, access to, and the exchange of, information.

Growing Our Human Capital

What we are trying to achieve

NRCan has the capacity and the expertise in place to effectively deliver on its priorities. Employee contributions are optimized and career development is aligned with organizational needs and career aspirations. NRCan has a work environment that is conducive to continuous learning, embraces Public Service values, linguistic duality and diversity.

Why this is a priority

To deliver on its priorities and Strategic Outcomes, NRCan must maximize its human capital; recruit strategically, drawing from Canada’s diversity; develop the right competencies and leadership skills; and ensure the transfer of knowledge from established and retiring personnel to the next generation. Maximizing the contribution and career development of the department’s people, from their first to their last day of service, will be key.

Risks being addressed

This priority addresses **workforce-related** risks where NRCan may not be able to attract, retain and support an effective workforce through proper workforce and workplace processes.

Plans for meeting the priority

NRCan will bring together key HR renewal efforts through the implementation of its Talent Management Approach and by continuing to implement and monitor action plans to address 2011 Public Service Employee Survey results. The department will focus on building and reinforcing key foundational elements (e.g., values and ethics, official languages, and employment equity).

Short-term commitments

- Implement the next phases in succession planning and talent mapping, and strengthen performance management through tools and training, ensuring organizational readiness for the coming into force of the Treasury Board Directive on Employee Performance Management by identifying opportunities for success and improvement and establishing an NRCan strategy to grow its leaders.
- Address areas of focus identified in the 2011 Public Service Employee Survey results with particular emphasis on career development and prevention of harassment and discrimination.

Spotlight

Values and Ethics

In 2013-14, NRCan will continue to engage management and staff on the new Values and Ethics Code for the Public Sector and the NRCan Code. For example, the department will establish a Values and Ethics Ambassadors Network comprising employee representatives from the department’s major regional offices. The Ambassadors will promote awareness and understanding of the 2012 Public Sector and NRCan Values and Ethics codes, and be a conduit to expertise, facilitating messaging between the regions and the Values and Ethics Centre of Expertise.

- Continue the implementation of NRCan’s Official Languages Action Plan and implement tools for managers and employees working in bilingual workplaces.
- Implement and monitor the 2012-15 Employment Equity Action Plan, a key element of NRCan’s commitment to building an organization that values employees for their differences, aims to treat all with fairness and respect, and fosters employee engagement.

- Continue to implement a three-year action plan to support wellness and disability management (year two).
- Develop, refine, and implement internal communications plans and products in support of departmental priorities.
- Building on the [Role of the Manager paper](#) developed in 2012, deliver a robust schedule of manager-focused learning events in 2013-14 to reinforce the fundamentals related to finance, people, project and information management, and build organizational awareness of key initiatives such as science communications and Responsible Resource Development.
- Assess progress achieved under the 2012-2015 Employment Equity Action Plan and renew actions to further a culture that integrates employment equity and diversity into NRCan's daily business operations and hiring and promotion decisions.
- Continue training for managers and employees in Values and Ethics and Conflict of Interest as well as in the Prevention of Harassment and Violence in the Workplace through the promotion of a respectful workplace, with a target to reach 25% of employees on a yearly basis for both subjects.
- Build on NRCan management for best practices in values and ethics and conflict of interest so as to further develop tools and guidance documents in this area.

Spotlight

Talent Management

In 2013-14, NRCan will focus its talent management approach – which aims to support and develop employees in their current and future roles at NRCan – on:

- Reinforcing the roles of the manager through tools and learning activities
- Strengthening the employee performance management process by bringing more rigour to work objectives and learning plans, and building on the recently introduced talent mapping of EX feeder groups
- Promoting ongoing discussions between employees and managers on career development
- Supporting leadership development through an NRCan Leadership Boot Camp and a mentoring program

Medium-term commitments

- Implement the Directive on Employee Performance Management, ensuring ongoing monitoring to support internal and external reporting.
- Deliver the Leadership Development Boot Camp to new managers and executives new to NRCan.
- Renew NRCan's Official Languages Action Plan for further improvements to language of work and the promotion of linguistic duality and minority communities and to address any emerging issues.
- Further identify occupational shortage areas through sound HR planning with a view to developing appropriate and targeted recruitment and staffing strategies.

Conclusion

The 2013-16 Integrated Business Plan provides high-level information on the global context NRCan is currently facing, the department's strategic and corporate priorities, and how these priorities are tied to the Program Alignment Architecture. This document consolidates information on what NRCan will do and how it will do it. However, the real value of the Integrated Business Plan is realized in how it is translated into employees' daily activities.

You are encouraged to discuss this plan with your colleagues and management team to see how your work contributes to NRCan's successes.

If you wish to learn more about specific planned activities, consult sectors' integrated business plans. Each of them provides more in depth information about their plans for the years ahead.

[Atomic Energy of Canada Limited Restructuring](#)

[Canadian Forest Service](#)

[Corporate Management and Services Sector](#)

[Earth Sciences Sector](#)

[Energy Sector](#)

[Innovation and Energy Technology Sector](#)

[Major Projects Management Office](#)

[Minerals and Metals Sector](#)

[Public Affairs and Portfolio Management Sector](#)

[Science and Policy Integration Sector](#)