

Audit of Integrated Planning and Risk Management

Corporate Internal Audit Division
Natural Sciences and Engineering Research Council of Canada
Approved by the President on March 23, 2017

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1 EXECUTIVE SUMMARY

BACKGROUND

Since the 2005 “Policy on Management, Resources, and Results Structure Policy”, there is clear expectation for federal departments to manage and allocate resources to achieve strategic outcomes. This message has been reinforced and expanded on by the Government of Canada’s latest commitment to improve the public service through the new Policy on Results (2016). Under this new policy, departments are expected to improve the achievement of results by setting a clear direction, establishing metrics and allocating resources based on performance.

The primary means by which departments manage their resources, as well as meet performance expectations concerning their strategic objectives is through integrated planning. The Treasury Board Secretariat of Canada (2007) defines integrated planning as the process of, *“determining your business goals; analyzing your environment to see if you have the appropriate complement to meet your current and future needs; assessing the gaps in your workforce-what are you missing from an HR perspective in order for you to achieve your goals; setting priorities, taking action, and initiating strategies to close the gap and help get the HR you need; and reviewing your efforts and assessing if you were successful in integrating HR and business planning”*.

While integrated planning is critical to the achievement of organizational objectives, it does not work in isolation from other corporate processes. Corporate risk management is closely tied to integrated planning because of its enterprise-wide nature and shared focus on the achievement of organizational objectives.

As of 2016-17, NSERC had a new strategic plan, entitled [NSERC 2020: A Strategic Plan](#). This document outlines five new and forward-looking goals. For the 2016-17 fiscal year, NSERC had implemented its integrated planning and risk management processes within the context of its new strategy. Given this specific intention, the Agency’s 2016-17 Corporate Plan and Corporate Risk Profile were designed with an explicit NSERC 2020 focus.

WHY IT IS IMPORTANT

The Audit of Integrated Planning and Risk Management was part of the 2016-19 Risk-based Audit Plan, which was approved by the NSERC President at the March 16, 2016 Independent Audit Committee meeting. The audit is important because integrated planning (IP) and risk management (RM) directly support the achievement of the Agency’s strategic goals; these processes involve a considerable time investment on the part of staff and senior management; and they have not yet been audited.

AUDIT OBJECTIVE AND SCOPE

The objective of the audit was to assess whether key controls were in place and operating effectively to support IP and RM in the achievement of NSERC's strategic goals.

The audit focused on how these two processes were applied to the most recent strategic plan—[NSERC 2020: A Strategic Plan](#)—to provide strategic value to management and ensure alignment with the purpose of IP and RM as defined by NSERC for 2016-17.

SUMMARY OF KEY FINDINGS

NSERC has articulated its vision and direction for the next five years in [NSERC 2020: A Strategic Plan](#). The strategy identifies five broad goals which have been based on extensive consultation with internal and external stakeholders. The strategy is supported by a Corporate Plan which is more operational in nature and is intended to help implement the strategy at the directorate and divisional levels by identifying key commitments and broad timelines for delivery.

NSERC has established an integrated planning process that follows an annual cycle and is intended to identify and monitor activities across the Agency related to the achievement of its strategic goals. The integrated planning process has been in place since 2012 and has been improved over time to reflect lessons learned from past cycles and address inefficiencies. Similarly, NSERC has established a corporate risk management process. These two processes are linked through a robust reporting and monitoring mechanism which provides management with information on status against actions on a bi-annual basis.

Nevertheless, the audit found that key aspects of IP and RM required improvement from both a design and implementation perspective. As IP and RM mature, it is recommended that senior management address the following findings:

1. Management committees did not include roles and responsibilities for IP and RM oversight in their Terms of Reference (ToRs). Without oversight formally enshrined within ToRs, no expectation has been set to ensure IP and RM receive committee-level monitoring so they may operate effectively.
2. Management committees' ToRs did not identify roles and responsibilities for the vetting and approval of the various IP and RM products, such as the Corporate Risk Profile, the Corporate Plan, the final list of key commitments and the mid-term and final reports. Without clearly documented and commonly understood roles and responsibilities to support vetting and approval, the Agency does not have assurance that key corporate documents receive the appropriate level of review, scrutiny and challenge before being finalized.
3. Leadership over the IP and RM processes has not been well articulated within the Agency. A review of corporate documentation and job profiles found that leadership could not be clearly identified. Furthermore, a survey of NSERC employees found that only 18% of directors and managers felt that leadership over these two corporate processes was clear. Without establishing leadership which is unambiguous and clearly understood across the organization, there is no one point of accountability to champion the effective implementation of IP and

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- RM and take ownership over the continuous improvement of these key corporate processes.
4. While the Corporate Risk Profile focuses on key operational risks to ensure effective delivery of NSERC's mandate, risk to the successful achievement of the strategic goals, as per the new strategic plan, has not been fully considered. As such, the current mitigations may not be sufficient to mitigate the higher level risks.
 5. The audit found that IP and RM processes have limited alignment with human resource and financial planning to support the resourcing of key commitments. Instead, there is a reliance on business cases to fund key commitments, an ad hoc process not linked to upfront planning. The limited integration of NSERC's main planning cycles (IP, RM, HR and Finance) creates a risk that important key commitments will not be sufficiently resourced, thus impacting the Agency's ability to deliver on its strategic goals.
 6. The audit found that the monitoring and reporting of trackable items related to the achievement of NSERC's strategic plan was heavy. Interviews with management suggested that the impact of the high number of items, as well as the different terms used to describe them (i.e., key commitments vs. divisional priorities vs. strategic actions) has created confusion around NSERC's intended focus and where resources need to be allocated.

CONCLUSION

NSERC has set a course for itself for the next 5 years in [NSERC 2020: A Strategic Plan](#). To support this vision forward, the Agency has continued to improve its IP and RM processes to facilitate the achievement of objectives. Both of these processes continue to mature and the recommendations in this audit are an opportunity to build upon the work completed to date. For IP and RM to work better in the future, leadership needs to be clarified and strengthened, as do the roles and responsibilities of the various management committees. In terms of implementation, the key commitments in the Corporate Plan need to be prioritized by senior management, better defined and costed. This will not only simplify reporting and monitoring, but it will also link IP and RM with the work of HR and Finance to ensure key commitments and risk mitigations are resourced appropriately. In a time of limited resources and fiscal restraint, the implementation of the recommendations is expected to focus corporate efforts, thereby enhancing efficiency and effectiveness.

2 BACKGROUND

The Natural Sciences and Engineering Research Council of Canada (NSERC) supports post-secondary based research and research training in the natural sciences and engineering. NSERC (the Agency) is a departmental agency of the Government of Canada and reports to Parliament through the Minister of Innovation, Science, and Economic Development.

NSERC's scholarships and fellowships programs, along with funding provided through discovery and partnership awards, supports university students in their advanced studies, promotes and supports discovery research, and fosters innovation by encouraging Canadian companies to participate and invest in postsecondary research projects.

ORGANIZATIONAL CONTEXT

In 2016, NSERC approved a new strategic plan, entitled [NSERC 2020: A Strategic Plan](#). This strategy, spearheaded by NSERC's new president, was completed after a year of extensive consultations with internal and external stakeholders (i.e., 19 town halls, 1,100 participants).

[NSERC 2020: A Strategic Plan](#) sets out a vision of making Canada a country of discoverers and innovators, reaffirms NSERC's commitment to global excellence and leadership in discovery and innovation, and to organizational excellence. It outlines five forward-looking goals that include:

1. **Fostering a science and engineering research culture in Canada** - Make science and engineering mainstream. Increase awareness and appreciation of science as a way of experiencing, understanding and enriching the world.
2. **Launching the new generation** - Mobilize Canada's future brain trust. Enable early career scientists to launch independent research careers.
3. **Building a diversified and competitive research base** - Stimulate breakthrough research excellence. Build, mobilize and connect expertise across populations, institutions, discipline, regions and sectors.
4. **Strengthening the dynamic between discovery and innovation** - Transform the dynamic between discovery and innovation. Deepen the interactions between colleges and universities, the private sector, governments and civil society.
5. **Going global** - Secure Canada's access to global scientific and engineering knowledge and expertise and increase participation in international research endeavors.

The level of effort invested in the nation-wide consulting, as well as the tone and language of this new strategic plan marked a departure from the strategic plans of the past. Previous plans had focused on broad themes of People, Discovery and Innovation to align with the Agency's program architecture and facilitate reporting to Parliament on its plans and priorities.

The present plan is aspirational in nature and intended to coalesce NSERC's clients into a coherent unit with clarity of purpose. The five themes will be woven into the general fabric of the organization, focused mainly on program delivery, as resources permit.

INTEGRATED PLANNING AND RISK MANAGEMENT

Since the 2005 “Management, Resources, and Results Structure Policy”, there is clear expectation for federal departments to manage and allocate resources to achieve strategic outcomes. This message has been reinforced and expanded on by the Government of Canada’s latest commitment to improve the public service through the [Policy on Results](#) (2016). Under this new policy, departments are expected to improve the achievement of results by setting a clear direction, establishing metrics and allocating resources based on performance.

The primary means by which departments manage their resources and meet performance expectations is through integrated planning. The Treasury Board Secretariat (TBS) of Canada’s [Integrated Planning Guide](#) (2007) defines integrated planning as the process of:

“...determining your business goals; analyzing your environment to see if you have the appropriate complement to meet your current and future needs; assessing the gaps in your workforce—what are you missing from an HR perspective in order for you to achieve your goals; setting priorities, taking action, and initiating strategies to close the gap and help get the HR you need; and reviewing your efforts and assessing if you were successful in integrating HR and business planning”.

In this definition, TBS establishes the identification of business goals as a point of departure from which all other planning activities occur. This is an important feature because how the department’s business goals are articulated, communicated and understood determines how well the rest of the integrated planning process functions. This definition also implies that integrated planning occurs in a top-down manner, whereby senior management establishes a direction and ensures resources are deployed. The TBS [Integrated Planning Guide](#) (2007) provides Deputy Heads with general principles-based guidance for implementing effective integrated planning.

While integrated planning is critical to the achievement of organizational objectives, it does not work in isolation from other corporate processes. Corporate risk management is closely tied to integrated planning because of its enterprise-wide nature and shared focus on the achievement of organizational objectives. [COSO Internal Control - Integrated Framework Executive Summary](#) (COSO) 2013, defines risk management as the process by which an organization identifies, assesses, mitigates and monitors risks to the achievement of organizational objectives.

The TBS 2010 [Framework for the Management of Risk](#) has provided principles-based guidance to deputy heads and has emphasized that risk management is intended to “add value as a key component of decision-making, business planning, resource allocation and operational management. Further to this, “failure to effectively manage risks can result in increased program costs and missed opportunities, which can compromise program outcomes, and ultimately public trust”.

APPLICATION OF IP AND RM AT NSERC

The IP and RM processes at NSERC are managed under the Communications, Corporate and International Affairs Directorate, led by a Vice-President. Within this Directorate, the Corporate Planning and Policy (CPP) Division is responsible for coordinating IP and RM activities. The CPP team consists of an Executive Director CPP, a Manager, Corporate Planning and Reporting, and an Integrated Planning, Performance Measurement and Risk Management Advisor.

For the 2016-17 fiscal year, NSERC implemented IP and RM within the context of its new strategy, as described on the Corporate Planning and Policy intranet page:

“NSERC’s vision as described in its NSERC 2020 Strategic Plan is to make Canada a country of discoverers and innovators for the benefit of all Canadians. The Plan establishes objectives for a five-year period in support of this outcome. NSERC’s integrated planning, risk management and reporting process helps us determine how to achieve these objectives by transforming them into tangible activities that can be reported on and successes that can be measured.”

This excerpt is important because it demonstrates the direct link between the strategic plan and the IP and RM processes.

3 AUDIT RATIONALE

The Audit of Integrated Planning and Risk Management was part of the 2016-19 Risk-based Audit Plan, which was approved by the NSERC President at the March 16, 2016 Independent Audit Committee meeting. The rationale for conducting this audit included:

- The integrated planning and risk management processes directly support the achievement of the Agency’s strategic goals, and are therefore key to the organization’s success;
- A wide range of stakeholders throughout the Agency are involved in these processes at various points in the year, suggesting that a considerable time investment goes into their implementation;
- The current IP and RM processes were launched in 2012 and have not yet been audited.

4 AUDIT OBJECTIVE AND SCOPE

The objective of the audit was to assess whether key controls were in place and operating effectively to support IP and RM in the achievement of NSERC’s strategic goals, as outlined in [NSERC 2020: A Strategic Plan](#).

To provide strategic value to management and ensure alignment with the purpose of IP and RM as defined by NSERC for 2016-17, this audit focused on how these two processes were applied to the most recent strategic plan—[NSERC 2020: A Strategic Plan](#). As such, the audit only covers IP and RM implementation from September 2015 to November 2016.

The sources of criteria for this engagement included (See Appendix I):

- [COSO Internal Control - Integrated Framework Executive Summary](#) (2013)
 - COSO has gained broad international acceptance and is recognized as a leading framework for designing, implementing, and conducting internal control and assessing the effectiveness of internal control¹;
- Internal Audit Sector, Office of the Comptroller General's [Audit Criteria related to the Management Accountability Framework: A Tool for Internal Auditors](#) (2011); and
- Treasury Board of Canada Secretariat's [Integrated Planning Guide](#).

Out of scope: The audit engagement did not examine:

- Planning for NSERC's on-going activities. For example, the audit did not examine how the Research Partnerships Directorate planned to deliver its core programs from year to year.
- Budget management—the budgeting process will be examined in more depth in the Audit of Budget and Financial Reporting Management scheduled for Q4 2016-17, as per the 2016-19 Risk-Based Audit Plan.
- Intersection with various plans such as the Security Plan, IM/IT Plan, BluePrint 2020 Plan etc.
- In-depth, end-to-end corporate risk management process. For example, the audit did not examine how consultations were conducted to identify risks, the corporate risk rating methodology, the appropriateness of the scales used etc.
- The development of Report on Plans and Priorities (RPP), Departmental Performance Report (DPR) or Management Accountability Framework (MAF) results and action plans.

5 AUDIT METHODOLOGY

The Corporate Internal Audit Division used the following methodology in conducting its work:

- Document review of various sources of information—including integrated planning and risk management frameworks, corporate strategies and plans, committee's Terms of Reference and meeting minutes, job profiles, the NSERC intranet site, policies, guidelines, communications etc.
- Interviews with internal key stakeholders involved in the management and coordination of integrated planning and risk management—including the Executive Director, Corporate Planning and Policy, and the Advisor, Integrated Planning, Performance Measurement and Risk Management, along with senior management from across the Agency.

¹ [COSO Internal Control - Integrated Framework Executive Summary](#) (2013)

6 CONFORMANCE STATEMENT

This audit conforms with the Internal Auditing Standards for the Government of Canada, as supported by the results of the quality assurance and improvement program. These standards require that sufficient and appropriate audit procedures be conducted and that evidence be gathered to provide a high level of assurance on the findings contained in this report. The conclusions were based on a comparison of the situations as they existed at the time against the audit criteria (Appendix I).

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7 KEY AUDIT FINDINGS

7.1 Control Environment

As per the [COSO Internal Control - Integrated Framework Executive Summary](#) (2013), a control environment is the set of standards, processes and structures within an organization. A strong control environment is characterized by organizational commitment, effective governance, leadership and a tone from the top. Within the context of IP and RM, the control environment refers to how management articulates goals, leads and delineates roles and responsibilities to ensure IP and RM are effective.

7.1.1 NSERC has articulated its strategic goals and has established corporate processes to assist in their achievement.

NSERC has articulated its vision and direction for the next five years in [NSERC 2020: A Strategic Plan](#). The strategy identifies five broad goals based on extensive consultation with internal and external stakeholders. NSERC has also developed a 2016-17 Corporate Plan, a document intended to help implement the strategy at the directorate and divisional levels by identifying key commitments and broad timelines for delivery. The Agency is currently in the process of developing a performance measurement framework to define targets, end-states and performance metrics for the strategic plan.

In support of the achievement of its strategic objectives, NSERC has established IP and RM processes. These processes have been in place since 2012 and have been modified over time to reflect lessons learned from past cycles and address inefficiencies.

7.1.2 Oversight has not been clearly defined in relation to integrated planning and risk management.

In order for key corporate processes to operate effectively, oversight is required. [COSO](#) (2013) suggests that oversight roles and responsibilities reside with senior management, particularly in relation to risk management. Oversight ensures processes are operating as intended, sufficiently resourced to be effective, and action is taken when deficiencies are identified.

NSERC has three senior-level management committees. These committees are the President's Management Committee (PMC), the Senior Management Roundtable (SMR), and the Executive Management Committee (EMC). The audit found that the Terms of Reference (ToRs) for NSERC's senior-level management committees did not include roles and responsibilities related to the oversight of IP or RM. Without oversight

formally ensconced within ToRs, no expectation had been set to ensure IP and RM received committee-level monitoring so they may operate effectively.

7.1.3 Leadership for integrated planning and risk management has not been clearly articulated.

The [Report of the Expert Panel on Integrated Business and Human Resources Planning in the Federal Public Service](#) (2008) identifies leadership as a critical success factor in determining the extent to which IP is effective. Leadership establishes a point of accountability for setting a direction and guiding the organization through the process.

Leadership over the IP and RM processes has not been well articulated within the Agency. A review of senior management and Corporate Planning and Policy Division staff job profiles found that accountability and ownership of IP and RM could not be determined. This was supported by findings from an October 2016 staff survey which showed that only 18% of directors and managers felt that leadership over IP and RM was clear. While causal links are difficult to establish, it is noteworthy to mention that this same study also found that only 33% of directors and managers understood the purpose of IP and RM, and even smaller proportions reported that these corporate processes were effective (16% and 11%, respectively). These results point to a possible relationship between leadership and the perceived utility of these key corporate processes within the management cadre.

Without establishing leadership which is unambiguous and clearly understood across the organization, there is no one point of accountability to champion the effective implementation of IP and RM and take ownership over the continuous improvement of these key corporate processes.

7.1.4 Roles and responsibilities of management committees have not been clearly defined in relation to integrated planning and risk management products.

The IP and RM processes produce a number of important products that require vetting and approval. The effective processing of these products relies upon the extent to which committees understand their roles and how the committees work together to ensure products are developed, refined and subsequently approved.

The audit found that while NSERC's management committees (PMC, SMR, EMC) were involved in the vetting and approval of key IP and RM products (e.g., final list of annual key commitments, Corporate Risk Profile, Corporate Plan, key commitment mid-term and end-of-year reports), there was no documented approval path to standardize this process and ensure the appropriate level of due diligence was applied annually. Furthermore, committee ToRs did not formally identify roles and responsibilities (i.e., discuss / endorse / recommend / approve) in relation to these products. Rather, partial information on roles and responsibilities was found to be dispersed among various corporate documents and the intranet. In the absence of commonly understood roles and responsibilities, the audit team was informed that members of management committees sometimes did not understand why various products were being brought forward, and were not clear on what the contribution of the committee was intended to be.

Without clear roles and responsibilities to support vetting and approval, the Agency does not have assurance that key corporate documents receive the appropriate level of review and scrutiny each year before being finalized. Furthermore, confusion created by the lack of clarity could lead to delays in the vetting and approval of products in the future.

RECOMMENDATION 1: It is recommended that the Agency strengthen governance over IP and RM by:

- A) Establishing committee-level oversight for IP and RM;
- B) Clarifying leadership to ensure there is a point of accountability;
- C) Establishing roles and responsibilities for the vetting and approval of key IP and RM documents.

7.2 Risk Management

As described in the Background section of this report, RM is the identification, assessment, mitigation and monitoring of risks to the achievement of an organization's strategic objectives. An effective enterprise-wide risk management process is formal and systematic, with oversight provided by management.

There is a strong relationship between effective RM and effective IP given their common purpose—the achievement of strategic objectives. In a truly integrated organization, these two corporate processes work together to set goals, define related commitments and then mitigate and monitor risks to successfully deliver on this work.

7.2.1 NSERC has established a formal risk management process aligned to and coordinated with its IP process.

Since 2010, NSERC has used its annual Corporate Risk Profile (CRP) as the primary tool to manage its corporate level risks. In 2012, the Agency documented its formal approach to addressing risks related to the achievement of organizational objectives in its Corporate Risk Management Framework (CRMF). The Agency's risk management process continues to mature; an initiative was underway at the time of the audit to coordinate and align the NSERC and SSHRC RM processes.

The audit found that NSERC's documented RM process contained most of the key components necessary for the effective management of risk—identification, assessment, mitigation, monitoring and reporting. Each year, NSERC selects and analyses risks to the Agency's strategic goals and formalizes them within the CRP. A key step to this process is the development of risk-specific registers, documents which include risk statements, risk triggers and mitigation activities. The information from the registers was found to be consolidated annually in the CRP. At mid-year in October and then at end-of-year in March, status reports were produced on the risk mitigation activities, and these reports were provided to management committees.

In addition to formalizing its approach to the management of risk, the audit found that the Agency had aligned and coordinated its RM process with its IP process to support the achievement of NSERC's strategic goals. The stated objective of both processes is to ensure the achievement of organizational goals as stated in [NSERC 2020: A Strategic Plan](#). As well, the timing of key steps in each process was well coordinated in 2016-17 and both processes used a common system for monitoring and reporting. At mid-year and end-of-year, status report information is gathered on corporate key commitments

and risk mitigation activities, consolidated in one report and provided to senior management committees at the same time. It was noted that this alignment of IP and RM optimized efficiency.

7.2.2 Strategic risks have not been fully considered in the Corporate Risk Profile.

Effective risk management requires the consideration of both strategic and operational risks. The audit found that the 2016-17 CRP is weighted heavily in operations and does not describe how (or whether) strategic risk exposures have been considered.

For the 2016-17 fiscal year, the four following risks were identified and formalized in the CRP:

1. **Research Portal 2.0** - The risk that delays occur with project planning and securing TB Authorities that impact its implementation;
2. **Legacy System** - The risk that the suite of NSERC legacy IM/IT systems ceases to support existing and new NSERC programs due to aging software and database systems;
3. **Security Management** – The risk that the organization fails to effectively manage physical and IT security;
4. **NSERC 2020 Implementation** - The risk that NSERC may not be able to fully respond to expectations generated by NSERC 2020 due to resource or organizational constraints.

As described in the risk statements above, the risks selected were primarily operational in nature, addressing the day-to-day grants administration business of the Agency. The last risk—'NSERC 2020 Implementation'—addresses the general NSERC 2020 strategy, however, the more detailed risk register implies that this risk is a 'catch all', touching upon several facets of change management and not specifically targeting any one area.

While management's focus on key operational risks is necessary to ensure effective delivery on NSERC's core mandate, it is unclear how NSERC's more strategic risks are being addressed. Interviewees noted that the 2016-17 CRP did not consider or address all strategic risk exposures - such as those related to specific goals in [NSERC 2020: A Strategic Plan](#) (i.e., 'going global'), the challenges of shifting government priorities and NSERC's position within the broader context of the Government of Canada (i.e., the current review and science and technology administration in federal government).

The identification of risks is the foundation upon which the entire risk management process rests. The risks identified for inclusion in the CRP determines and prioritizes the mitigation actions that are required. The remaining steps in the RM process are to take, monitor and report on the 'selected' mitigation actions. Failure to select the most appropriate risks at the beginning of the process could result in an exposure, impacting NSERC's ability to achieve its objectives.

Given the level of integration of RM and IP, the weaknesses covered in the governance and leadership sections of this report apply equally to both processes. NSERC can help ensure that strategic risks are appropriately considered in the RM process by clarifying the documented roles and responsibilities for oversight and leadership of the IP and RM processes, as noted in recommendation #1.

7.2.3 Inconsistent understanding of key risk management concepts.

Information on NSERC's RM approach is articulated or described in various documents - the CRMF, the CRP, on Corporate Policy and Planning's intranet page, and as part of the annual risk assessment call letter. While these sources collectively provide staff with information on the main elements of risk management at NSERC, some important RM concepts are not adequately described in any of the agency's risk documentation and there is limited procedural guidance available for those involved in the annual risk assessment process.

The audit found that management and staff across NSERC do not share a common understanding of NSERC's risk management process, nor of some fundamental RM concepts – including:

- how the agency identifies pertinent risks;
- what type of risks are included in the CRP (i.e., strategic, operational or both);
- how to assess and prioritize risks that have been identified;
- how to develop and select appropriate risk mitigations.

As previously noted, the 2012 CRMF formalized NSERC's RM regime. As the Agency's first risk management guide, the document was high level and focused more on components of risk management rather than how risk management was intended to operate on a yearly basis. In 2012, management recognized that the CRMF would require future revisions, noting that they would "continue strengthening the framework as a key decision support tool". The CRMF has not been revised since 2012.

Even with all COSO RM components in place, an effective RM regime requires that the components be applied under a standardized methodology and supported with well documented procedural guidance. Without these supporting features, NSERC's RM process does not ensure that the agency is identifying all its risks, consistently assessing and prioritizing risks to be managed, or selecting appropriate risk mitigation measures.

RECOMMENDATION 2: It is recommended that NSERC's CRMF be reviewed and updated, with particular attention paid to how risks are identified, selected, prioritized and approved.

7.3 Control Activities

Control activities are processes, policies and procedures that help support the achievement of objectives.² As far as IP and RM are concerned, one of the main activities used to support their effectiveness is the allocation of human and financial resources to key commitments. For the purposes of the discussion below, the term 'key commitment' will refer to all action items identified in the Corporate Plan, including risk mitigations.

7.3.1 The IP and RM processes have limited alignment with human resource and financial planning to support the resourcing of key commitments.

At NSERC, the first point of intersection between IP/RM and how resources are allocated is intended to occur when Human Resources (HR) and Finance meet with the

² [COSO Internal Control - Integrated Framework Executive Summary](#), page 75, 82

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budget holders (directors and VPs) of the respective divisions and directorates to discuss their resourcing needs for the upcoming fiscal year. These meetings, held in January and February, are intended to identify resource challenges and options for addressing the challenges. These meetings also provide HR and Finance with a better understanding of what is going to be required of their services (i.e., assistance preparing job posters, running competitions, forecast spending) for the upcoming fiscal year.

The audit team was informed that while meetings do occur in January/February between HR, Finance and the budget holders, these discussions are primarily focused on on-going business needs rather than the key commitments identified through the IP and RM processes. The audit found that the resource discussions were not focused on key commitments for two reasons,

- At the time these resource allocation discussions took place, ‘one-to-one accountability’ for key commitments had not yet been formally established. As such, budget holders may not have known they were accountable to deliver on certain key commitments. Accountability was only clarified later in the year during mid-year reporting, months after these discussions with HR and Finance took place.
- At the time of these resource allocation discussions, many key commitments did not match the corporate definition³, were broad and not costed⁴. Without greater specificity in terms of what key commitments were trying to achieve and the people/funds necessary to do this work, concrete resource discussions would not have been possible.

In lieu of more formal planning, the audit found that NSERC employed ‘business cases’ to resource the 2016-17 key commitments, an ad hoc process not linked to the upfront HR and financial formal planning cycles. While business cases are helpful for resourcing *unforeseen* pressures which may arise throughout the year, key commitments represent *planned* initiatives and, therefore, should be part of the upfront formal planning process.

The limited integration of NSERC’s main planning cycles (IP, RM, HR and Finance) creates a risk that important key commitments will not be sufficiently resourced, thus impacting the Agency’s ability to deliver on its strategic goals. Moreover, the limited integration represents a missed opportunity to maximize efficiency in how NSERC plans, prioritizes and resources for the coming year.

³ The November 4 2015 IP Call Letter indicates, “‘Key commitments’ include what have been referred to by a variety of names in the past, including “priorities”, “deliverables” or “key deliverables”. They are time-limited initiatives that address the change agenda and are over and above ongoing divisional activities. They can apply to just one year or be spread over many years but they have “an end”.”

⁴ For example, some of the key commitments from the 2016-17 Corporate Plan were: “*Enhance programs and processes to better engage and increase participation of underrepresented groups and institutions*”; “*Enhance programs to facilitate international collaboration*”; and “*Identify key projects that will improve the efficiency of the Research Grants program delivery and peer review*”.

RECOMMENDATION 3: To better align IP and RM with the planning conducted by HR and Finance, it is recommended that:

- A. One-to-one accountability is established and clearly communicated for key commitments prior to the annual resource discussions with budget holders.
- B. Key commitments (including risk mitigations) be designed in a manner that is clear, tangible, meets the corporate definition and are costed and approved prior to the annual resource allocation discussions.

7.4 Monitoring and Reporting

Effective IP and RM requires the generation of relevant, sufficient and reliable information to inform decision-making. This information should be reported to senior management at predetermined points within the IP and RM cycles to facilitate the effective monitoring of achievement against objectives. Reports are intended to provide management with an understanding of performance as well as status against planned actions, facilitating strategic decision-making and course correction as required.

7.4.1 The IP and RM processes are designed in a manner that facilitates the monitoring and reporting of progress against key commitments.

NSERC's IP and RM processes place a great deal of emphasis on the monitoring and reporting of key commitments, including risk mitigations. As previously stated, two status reports are produced annually—mid-year and end-of-year—to provide senior management with updates against the key commitments in the divisional plans, which in turn, roll up to the key commitments in the Corporate Plan. These status reports indicate whether key commitments have been completed, are on-time or delayed, and are provided to senior management committees for discussion purposes and action, if needed.

The audit noted that the status updates provided by key commitment owners, as part of the mid-year and end-of-year reports, are not accompanied by documentation to substantiate the reported status. To ensure the reported status could be supported, the audit tested a small sample of key commitments that were identified as 'on track' in the 2016-17 mid-term report. The audit found that work on these key commitments could generally be substantiated.

7.4.2 Monitoring is heavy and lacks clear focus.

The audit found that the monitoring and reporting of trackable items related to the achievement of NSERC's strategic plan was heavy. For the 2016-17 fiscal year, the Agency was monitoring 45 key commitments as per the Corporate Plan. The Corporate Plan key commitments were linked to 62 'divisional priorities', as per the divisional plans. Furthermore, during the course of the audit, an 'NSERC 2020 Roadmap' was developed. This document included an additional 33 'strategic actions'. Collectively, these amounted to 140 corporate-level trackable items within a one-year timeframe. Interviews with management suggested that the impact of the high number of items, as well as the different terms used to describe them (i.e., key commitments vs. divisional priorities vs. strategic actions) has created confusion around NSERC's intended strategic focus and where resources need to be allocated. Furthermore, there is administrative burden associated with monitoring a high number of items for owners and senior management alike.

The high number of items generated by the IP and RM processes may be due to the 'bottom-up' approach that has been established for their selection. As part of both cycles, managers and directors identify key commitments using their professional discretion, which are then entered into SharePoint, the Agency's web-based repository of key commitment information. These items may or may not receive formal approval by the respective VPs prior to their inclusion in the Corporate Plan, suggesting that some key commitments are finalized without further review. While senior management reviews the Corporate Plan and has the opportunity to make modifications before it is finalized, there is no set process for the prioritization of key commitments or identifying trade-offs.

7.4.3 *SharePoint is recognized as the main data collection tool, but functionality for the purposes of analysis, reporting and monitoring is limited.*

As previously mentioned, NSERC uses SharePoint as a web-based electronic repository for the collection and storage of key commitment information gathered in the integrated planning and risk management processes. The audit team was informed in interviews that while SharePoint was perceived to be an appropriate tool for data collection purposes, at the time of the audit, it did not meet the Agency's broader IP and RM needs. For instance, evidence from end-user 'lessons learned' suggest that users are currently unable to view information populated by other divisions and directorates to better understand how work happening outside their division could impact them. Users also noted that SharePoint was limited in its ability to capture mid-year and end-of-year milestone information. As such, a more labour intensive approach has been adopted by which the mid-year and end-of-year reports are assembled outside of SharePoint using a series of spreadsheets and Word documents. Lastly, it was noted that SharePoint did not feature a 'forced VP approval' control and data lockdown to ensure key commitments could not be changed once approved.

RECOMMENDATION 4: It is recommended that the IP and RM processes be amended to ensure senior management vets, challenges and prioritizes key commitments prior to their inclusion in the Corporate Plan. It is also recommended that NSERC reduces the number of key commitments in the final list to create a clearer focus and simplify corporate-level monitoring and reporting.

8 CONCLUSION

NSERC has set a course for itself for the next 5 years in [NSERC 2020: A Strategic Plan](#). To support this vision forward, the Agency has continued to improve its IP and RM processes to facilitate the achievement of objectives. Both of these processes continue to mature and the recommendations in this audit are an opportunity to build upon the work completed to date. For IP and RM to work better in the future, leadership needs to be clarified and strengthened, as do the roles and responsibilities of the various management committees. In terms of implementation, the key commitments in the Corporate Plan need to be prioritized by senior management, better defined and costed. This will not only simplify reporting and monitoring, but it will also link IP and RM with the work of HR and Finance to ensure key commitments and risk mitigations are resourced appropriately. In a time of limited resources and fiscal restraint, the implementation of the recommendations is expected to focus corporate efforts, thereby enhancing efficiency and effectiveness.

9 AUDIT TEAM

Chief Audit Executive
Audit Principal
Senior Internal Auditor

Peter Finnigan
John-Patrick Moore
Alice Hanlon

10 MANAGEMENT RESPONSE TO AUDIT RECOMMENDATIONS

ITEM	*URGENCY RATING	RECOMMENDATION	MANAGEMENT RESPONSE	TARGET DATE
1.	12 months or less	<p>It is recommended that the Agency strengthen governance over IP and RM by:</p> <p>A. Establishing committee-level oversight for IP and RM;</p> <p>B. Clarify leadership to ensure there is a single point of accountability;</p>	<p>We agree with the recommendation, with the understanding that decisions resulting from the process of integrated planning and corporate risk management need to be considered within the context of the Agency's core business of delivering, managing and validating the outcomes of grants and scholarships to the natural sciences and engineering research community as effectively and as efficiently as possible.</p> <p>NSERC's Corporate Planning and Policy division (CPP) will consult with senior management and propose revisions to the Terms of Reference of NSERC's management committees to establish committee-level oversight for integrated planning and risk management.</p> <p>The Vice President of Communications, Corporate and International Affairs will act as the single point of accountability for NSERC's integrated planning and risk management processes and will ensure alignment with the resource management process under the responsibility of the CFO.</p>	<p>September 29, 2017</p> <p>April 1, 2017</p>

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		C. Establishing roles and responsibilities for the vetting and approval of key IP and RM documents.	CPP will consult with senior management and propose revisions to the Terms of Reference of NSERC's management committees to establish roles and responsibilities for vetting and approval of key integrated planning and risk management documents.	September 29, 2017
2.	12 months or less	It is recommended that NSERC's CRMF be reviewed and updated, with particular attention paid to how risks are identified, selected, prioritized and approved.	<p>We agree with this recommendation.</p> <p>CPP will propose revisions to NSERC's Corporate Risk Management Framework to ensure greater alignment with the resource management process, taking into account the ongoing bi-agency efforts to coordinate and align NSERC's and SSHRC's corporate risk management processes where possible.</p>	September 29, 2017
3.	12 months or less	<p>To better align integrated planning with the planning conducted by HR and Finance it is recommended that:</p> <p>A. One-to-one accountability is established and clearly communicated for key commitments prior to the annual resource discussions with budget holders;</p> <p>B. Key commitments be designed in a manner that is clear, tangible,</p>	<p>We agree with this recommendation.</p> <p>The new integrated planning guidelines for key commitments will ensure that one-to-one accountability is established and clearly communicated prior to the annual resource discussions with budget holders.</p> <p>CPP will consult with senior management and revise guidelines so that</p>	<p>September 29, 2017</p> <p>September 29, 2017</p>

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		meets the corporate definition and are costed prior to the annual discussions.	key commitments are clear, tangible, and consistent. CPP will work with NSERC's HR and Finance management to better align integrated planning with human and financial resource requirements.	September 29, 2017
4.	12 months or less	It is recommended that the IP and RM processes be amended to ensure senior management vets, challenges and prioritizes key commitments prior to their inclusion in the Corporate Plan. It is also recommended that NSERC reduces the number of key commitments in the final list to create a clearer focus and simplify corporate-level monitoring and reporting.	We agree with this recommendation. CPP will consult with senior management and propose revisions to the Terms of Reference of NSERC's management committees to ensure that the appropriate committee(s) vet and prioritize key commitments prior to their inclusion in the Corporate Plan. The proposed revisions to integrated planning guidelines will ensure that key commitments are more focused to simplify monitoring and reporting.	May 31, 2017

*Urgency Rating: The Corporate Internal Audit Division recommends management actions associated with the recommendation be completed using the following timeline:

6 months or less
12 months or less
18 months or less

11 APPENDIX I – AUDIT CRITERIA

Line of Enquiry	Audit Criteria	Report Reference
<p>LOE 1: Control Environment</p> <p>The control environment is the set of standards, processes and structures that provide the basis for carrying out internal control across the organization. Senior management establishes the tone at the top regarding the importance of integrated planning and expectations for its successful implementation.</p>	<p>Criterion: The Agency has in place an approved strategic plan and corresponding operational activities aimed at achieving its strategic goals.</p> <p>Criterion: The Agency has established roles, responsibilities and authorities for integrated planning, as well as the achievement of strategic goals.</p>	Pages 10-12
<p>LOE 2: Risk Management</p> <p>Risk assessment involves a dynamic and iterative process for identifying and analyzing risks to achieving the entity's goals, forming a basis for determining how risks should be managed.</p>	<p>Criterion: The integrated planning process has incorporated measures to identify, mitigate and report on the risks that could impact the Agency's ability to achieve its strategic goals.</p>	Pages 12- 14
<p>LOE 3: Control Activities</p> <p>Control activities are the actions established by policies and procedures to help ensure that management directives to mitigate risks (to the achievement of goals) are carried out. Control activities are performed at all levels of the entity and at various stages within business processes.</p>	<p>Criterion: Resources are allocated to planned activities which are aligned to the strategic goals.</p> <p>Criterion: The Agency monitors actual performance against planned results, makes adjustments as required, and reports on progress towards meeting the Agency's priorities.</p>	Pages 14-16
<p>LOE 4: Information and Communication (Monitoring and Reporting)</p> <p>Information is necessary for the entity to carry out internal control responsibilities in support of achievement of its goals. Communication enables personnel to understand internal control responsibilities and their importance to the achievement of goals.</p>	<p>Criterion: Reporting expectations against the strategic goals have been articulated and communicated, and senior management receives timely and complete information to support decision making.</p>	Pages 16-17