



Western Economic
Diversification Canada

Diversification de l'économie
de l'Ouest Canada

Audit of the Project Management of Project Gateway

WESTERN ECONOMIC DIVERSIFICATION CANADA

Audit and Evaluation Branch

March 2010

Table of Contents

1.0	Executive Summary	1
2.0	Conclusion and Audit Assurance	2
3.0	Introduction	3
4.0	Observations and Recommendations	5
4.1	Governance and Accountability	5
4.2	Resource Planning, Monitoring and Reporting	7
4.3	Change Management and Risk Management	8
4.4	Information and User Involvement	9
5.0	Conclusions	11
6.0	Audit Strategies and Approach	12

1.0 Executive Summary

- 1.1 The audit of the Project Management of Project Gateway was identified in the approved Western Economic Diversification Canada (WD) 2009 – 2012 Risk Based Audit Plan. Project Gateway evolved from the WD Project Assessment Tool in 2003, as an electronic means of managing the life cycle of WD grants and contribution projects. A functional life cycle project management system is critical to WD's grants and contribution business so Project Gateway has undergone a number of changes over time. Project Gateway is one of WD's most critical application systems.
- 1.2 The purpose of the audit is to provide audit assurance to the Deputy Minister that an adequate project management control framework is in place to guide ongoing Project Gateway enhancements and to assess that Project Gateway is designed to meet key business needs.
- 1.3 The audit examined WD's project management practices over the development and modifications of Project Gateway. The audit focused on WD's project management framework and how WD identified, prioritized, established evaluation criteria, and implemented changes to the system. The audit examined WD's practices against the existing Treasury Board Project Management Policy and related directives. Federal departments are in transition towards a new Treasury Board Policy on Management of Projects which will come into effect on April 01, 2011. The audit looked to identify opportunities to assist WD's transition to the new policy.
- 1.4 Project Gateway's ongoing system development and modification involves a significant investment of WD's time and resources. The audit expectation is that WD has established an effective project management process to accomplish the expected results of the project charter. The audit did not assess the functionality of the Project Gateway system.

Findings

- 1.5 WD's Information Management Technology Council (IMT Council) and Project Gateway Steering Committee are playing a critical governance role to address system shortcomings, improve risk management, monitor progress, and review resource planning strategies for Project Gateway.
- 1.6 IMT Council is demonstrating sound management practice to evaluate short-term Project Gateway investments. The overall audit evidence examined indicates that a sound internal control framework is in place, subject to the recommended improvements included in this report.
- 1.7 The full costing of investments is critical to making proper resource allocation decisions. Management should strengthen its variance reporting on projects approved.
- 1.8 Management should determine whether to carry on with the current system or find an alternative solution to meet WD's critical business needs. In order to do so, management

will need proper full costing to determine the actual cost of Project Gateway as compared to alternatives.

- 1.9 Management should communicate investment decisions with the user community in order to manage expectations. A risk exists that system improvements are not being fully used and that some user confidence in the system has been eroded.
- 1.10 Management should update its Project Gateway needs assessment to validate that its future investments will address the most pressing business needs for the system.

2.0 Conclusion and Audit Assurance

- 2.1 The audit noted a strengthening, in 2009, of the controls and governance in place over the management of the Project Gateway system. Many elements of an effective project management framework are in place to manage current and future investments in Project Gateway. However, opportunities exist to further strengthen the current practices and processes as outlined in the recommendations in this report. If not addressed, the auditors feel that these gaps present moderate to high residual risk to management.
- 2.2 In the professional judgment of the Chief Audit Executive, sufficient and appropriate audit procedures have been conducted and evidence gathered to support the accuracy of the conclusion provided and contained in this report. The conclusion is based on a comparison of the conditions as they existed at the time, against pre-established audit criteria that were agreed with management. The evidence was gathered in accordance with the Government of Canada internal audit standards, the Treasury Board of Canada Policy on Internal Audit and its associated directives.

3.0 Introduction

- 3.1 Project Gateway, a custom built project information management application of choice, evolved from the WD Project Assessment Tool in 2003, as an electronic system intended to manage the life cycle of WD grants and contribution projects. Project Gateway has undergone a number of changes over time as the system's capability has been enhanced to meet changing business needs.
- 3.2 The audit assessed the overall project management of Project Gateway and how changes to the system are managed. The audit focused on WD's project management framework and how WD identifies, prioritizes, and implements changes to the system based on WD's business drivers. The audit assessed WD against the existing Treasury Board Project Management Policy. Federal departments are in transition towards a new Treasury Board Policy on Management of Projects which will come into effect on April 01, 2011. Where possible, the audit will look to identify opportunities to assist WD's transition to the new policy.

Audit Context

- 3.3 A life cycle project management system is critical to WD's grants and contribution business line. An effective life cycle system should enable program and project management, project monitoring and reporting of results and outcomes. Project Gateway is one of WD's systems/applications developed to meet this goal.
- 3.4 The Treasury Board of Canada, the Auditor General of Canada, and organizations like the Institute of Internal Auditors have all signaled the inherent risks and the audit significance of information systems and/or projects under development. These types of audit help to ensure that investments are effectively managed and achieve the desired results.
- 3.5 Project Gateway's ongoing system development and modifications involves a significant investment of WD's time and resources. The audit expectation is that WD has established an effective project management process.

Audit Objective

- 3.6 The purpose of the audit was to provide audit assurance to the Deputy Minister that an adequate control framework is in place for the project management of Project Gateway investments and to assess that Project Gateway is being designed to meet key business needs.

Scope

- 3.7 The scope of the audit covers the project management of the ongoing development of Project Gateway. This includes examining the project's governance and accountability structure, and how WD manages its investments in Project Gateway. The audit reviewed

WD's internal project management practices and controls. The audit did not assess the functionality of the Project Gateway system.

Key Risks

- 3.8 Management designs controls to mitigate risks. This audit is intended to provide assurance on the existence and effectiveness of management's controls to mitigate the following risks:
- a. Vaguely defined project scope and business objectives exist for Project Gateway investments;
 - b. Lack of senior management support, insufficient resources and attention to Project Gateway;
 - c. Insufficient user involvement to define and/or clarify objectives and needs; and
 - d. Inadequate information tools, training and communications strategies e.g. version control, user proficiency, change management.

Acknowledgements

- 3.9 The auditors would like to thank WD management and staff for the cooperation and timely assistance provided to the audit team throughout this engagement.

4.0 Observations and Recommendations

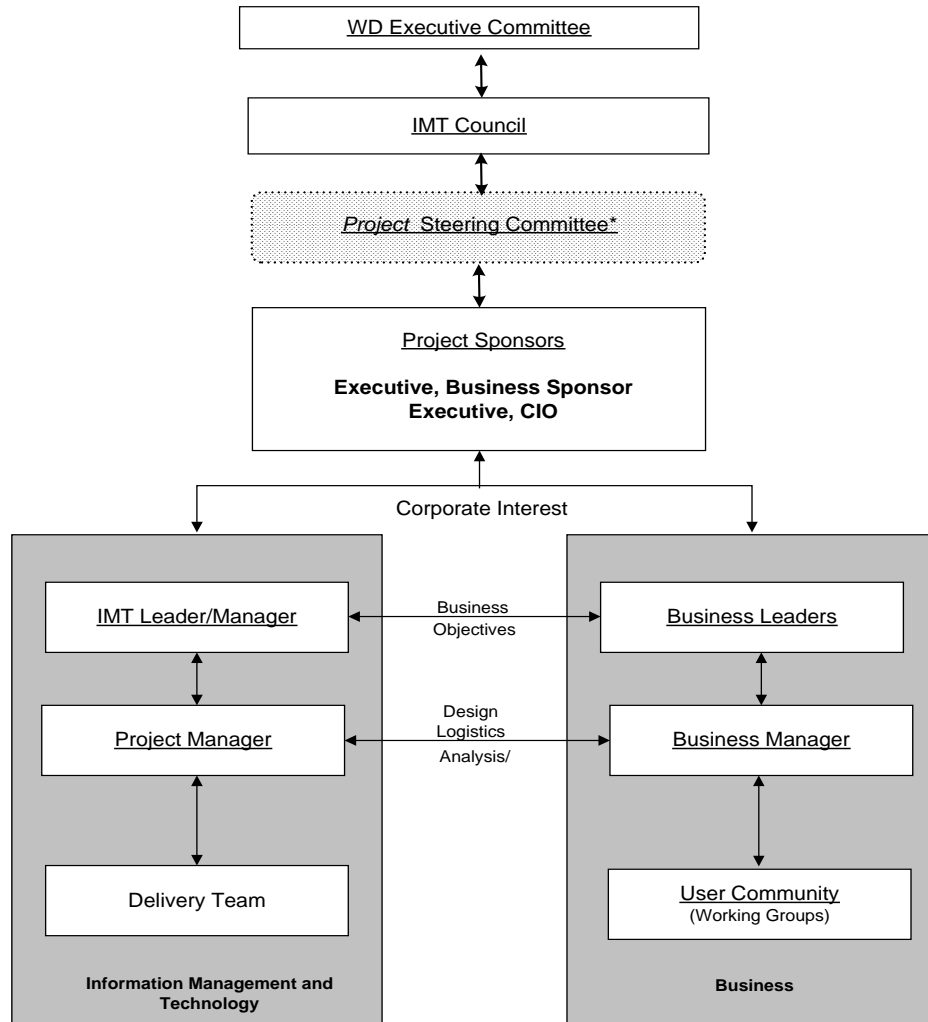
4.1 Governance and Accountability

Criteria: It was the audit expectation that there was appropriate governance structure, oversight, accountability and controls in place to achieve project desired objectives. WD's project management philosophy was consistent with the best practices for IT management advocated by Treasury Board policies. WD has established clear direction and strategies for its Project Gateway investment.

- 4.1.1 In December 2003, the Information Management and Technology division (IMT) developed a Project Management Framework (framework) document to guide the process for information systems or project development. The framework advocated for appropriate project governance and sound project management practices and applied to all new projects and to existing maintenance and enhancement projects that utilize IMT resources.
- 4.1.2 WD formed a Project Gateway Steering Committee to provide leadership and project authority as described in the Project Gateway charter. In addition, the Deputy Minister approved 2008 IMT Plan recognized the Information Management and Technology Council (IMT Council) as the oversight governing body over information management and technology. The auditors noted over 80% of IMT Council members were also on the Project Steering Committee.
- 4.1.3 Based on a review of the minutes of the respective meetings, it was evident that prior to 2009 both the Project Steering Committee and IMT Council met infrequently and had many absentee members. Although the auditors reviewed lots of documentation from the period prior to 2009, there was little evidence of documented decision making. Many of the documents presented to the auditors were marked "draft", making it difficult to sort out what documents had been approved. However, in 2009, the IMT Council was restructured and revitalized and has since become quite engaged and active. Periodic reporting and accountability for special activities has become the norm. WD's current governance and accountability practices are consistent with Treasury Board policies and information technology project management standards.
- 4.1.4 Currently, the IMT Council reviews and evaluates information management and technology projects and associated funding requests prior to their submission to the Executive Committee for approval. The Director of IMT, as the Chief Information Officer, prepares an annual IMT business plan which included a Project Gateway business plan.
- 4.1.5 The organization structure for Project Gateway is depicted in the approved 2008-09 IMT Plan in Table 1. The IMT Council which includes two Executive Committee members

provides strategic direction, oversight and support activities for all IMT investments including Project Gateway. The council recommends decisions, activities and investments to WD's Executive Committee for approval as needed.

Table 1: IMT Organization Structure Framework



A project team of both IMT personnel and business staff manages and maintains Project Gateway. The audit assessment is that the Project Gateway structure aligns with and satisfies Treasury Board policy and information technology standards.

- 4.1.6 WD developed a Project Gateway charter in 2004 and updated the charter in 2007. Staff indicated to the auditors that the 2007 charter reflects Project Gateway having evolved from a project to a system development lifecycle and a system to be maintained.

- 4.1.7 Given Project Gateway's maturity and evolution into a critical enterprise-wide system, the timing is likely very good for WD's Executive Committee to review and re-confirm its commitment to Project Gateway's planned future strategic direction. This is discussed in more detail in section 4.2.

4.2 Resource Planning, Monitoring and Reporting

Criteria: It was the audit expectation that sufficient and appropriate resources have been invested based on Project Gateway's scope needs and project objectives. Effective cost management practices were implemented to evaluate, prioritize, and choose between Project Gateway enhancements. The project scope and requirements have been defined and the deliverables and constraints understood by all. All system enhancements have clearly defined benefits and evaluation criteria that are adequately tracked and reported.

- 4.2.1 The 2004 and 2007 Project Gateway charters state the primary purpose of project investments as transforming Project Gateway to an application that supports a full grants and contribution lifecycle project information management system. The charters identified resource requirements based on prioritized deliverables. Management hired an external consultant to work with experienced internal staff to develop these resource requirements. Subsequent business cases were prepared to justify additional funding. These budgets were approved through the regular departmental resource allocation process.
- 4.2.2 Over the years, Project Gateway has been financed based on a series of short term budgets and business cases. However, the various budgets and business cases did not include full project costing as described in Treasury Board's Project Approval Policy. Some internal indirect costs such as employees' salaries, government contributions to employee benefit plans, and system development related costs were not included in the project estimates. The auditors also noted inconsistencies between the resource costing in the various business cases and the April 2006 capitalization guide developed by WD's Corporate Finance Branch.
- 4.2.3 During the audit, staff noted that due to lack of funds there is no segregation between maintenance and development duties. Staff assessment is that more funds need to be dedicated to Project Gateway to enable the system to accomplish desired results. It is evident from some of the comparative analysis done on other departments in 2005 that WD spends far less on its Project Gateway system than comparable departments. However, the IMT Council or Steering Committee need to manage staff expectations, as funds are not unlimited.
- 4.2.4 More resources are required to deliver on WD's priority needs for the system. However, management should insist on better variance reporting to properly monitor and assess the cost-effectiveness of achieving those desired deliverables. In order to accomplish this, any future business cases must adopt a full costing model.

- 4.2.5 From 2006 to 2008, performance reporting on Project Gateway development was sparse and primarily used for budget allocation purposes. The latest report to the Project Steering Committee available to the auditors for review was dated February 2008. Deviations from scope, schedule, and budget were pointed out in this report, but explanations for the deviations were limited. For example, no explanation was given for exceeding budget by \$200k and deviating from the approved schedule.
- 4.2.6 The auditors did not find adequate budgetary control activities to measure the full cost of work completed, to compare the actual cost to the planned and budgeted costs, and to implement corrective action when the actual cost did not conform to the budgeted cost. The methods and tools used to track the project cost were inconsistent and incomplete.
- 4.2.7 Management developed periodic business cases based on its priorities of enhancements need for Project Gateway. It is important to periodically step back and assess whether continued investment in the current custom-designed system is WD's most cost-effective solution in the long-run. To that end, in March 2010, management hired a consultant to undertake an options analysis to research and assess other government departments, agencies, not-for-profit organizations, and commercial off-the-shelf alternatives to Project Gateway.

Recommendation #1: The department needs to enhance its current project management processes to adopt full costing estimates in future business cases, adequate variance reporting with explanations, and a final report on results achieved compared to those identified.

Recommendation #2: Once the results of the Project Gateway options analysis study are available, management should seek Executive Committee decision on the future strategic direction of Project Gateway or any recommended alternative.

4.3 Change Management and Risk Management

Criteria: It was the audit expectation that the project management framework and practices followed gave adequate attention to manage risk and other IT challenges so that the investments would not result in loss of trust, reputation of system, or resources. Sound change management practices were utilized to effectively control and meet the project objectives, including business cases for strategic changes, activity initiation, authorization, and resource implications validated.

- 4.3.1 The Business Process and System Development group, that consists of headquarters and regional representatives from both business and information technology, was the principal working group that engaged with the project delivery team on a regular basis. Regular consultation and collaboration existed among the project delivery team and the users. The minutes, presentations, testing and training documentation reviewed all supported the existence of this consultation. Stakeholder engagement is a critical element of change management.

- 4.3.2 A parking lot list was established to identify development shortfalls and patches required, and for use in planning and setting priorities. At the operational level, a risk log was maintained for system development activities, prevention or mitigation activities. The project team maintained log sheets of requests, status, and risk log sheets. The auditors found this is a sound business practice.
- 4.3.3 The auditors found adequate documentation indicating regional and user support of planned results and deliverables as evidenced by the minutes of the Business Process and Systems Development working group face to face meetings and bi-weekly calls.
- 4.3.4 The auditors found examples of key commitments made from 2006 to 2009 that were not complete by the time of the audit. The inability to deliver on planned commitments erodes the users' confidence in the system. Steps are being taken to address some of the outstanding items. In February 2010, two contracts were awarded to external developers to assist with cleaning up outstanding issues on the parking lot list.
- 4.3.5 In January 2009, the Government announced its Economic Action Plan and associated stimulus funding. The project team, rightfully so, had to change its priorities in order to fast-track some system enhancements needed to deliver on the new initiatives. As a result, some planned enhancements were postponed. Management considered the risks associated with these associated delays at Project Gateway Steering Committee meetings. It would also have been worthwhile for the project team to update its risk assessment to identify and report any residual risks resulting from the change in priorities and associated delays.
- 4.3.6 In summary, Project Gateway has multiple stakeholders with multiple requests that cannot all be satisfied, so management needs to manage client and staff expectations.

Recommendation # 3: Management should regularly communicate its Project Gateway investment needs, priorities and investment decisions (both to fund and to not fund) with the user community.

4.4 Information and User Involvement

Criteria: It was the audit expectation that relevant information and consultations have occurred with users who trust the reliability of Project Gateway as a project management life cycle tool. Key stakeholders (including the regions) are regularly consulted. Education and training are provided to appropriate stakeholders. Periodic changes and patches are supported by key stakeholders and users allocate adequate resources to effect changes.

- 4.4.1 The Business Process and System Development working group, consisting of headquarters and regional representatives, provided support and coordination of regional activities related to Project Gateway. Regular consultation existed among the business, project delivery team and the users. In recent years guideline and procedures have been

developed and shared with relevant stakeholders to facilitate proficiency and provide clarity of the system.

- 4.4.2 Training and presentations were periodically provided to users. A user guide for Project Gateway was developed and periodically updated. The users were involved in acceptance tests whereby feedback and suggestions for system enhancement were provided. Release notices on Project Gateway were sent to the users. The project team maintained a site on WD's intranet that was regularly updated with minutes to meetings, training notices, testing exercises, presentations, news, and new deliverables for the information of stakeholders.
- 4.4.3 Some stakeholders consulted during this and past audits have expressed dissatisfaction with Project Gateway's results, and consequently they have not used the system recently. These stakeholders expressed concerns due to delays in system development, incomplete results, not meeting outside clients desired project electronic engagement, incompatibility to modern technology in the market place that users work with every day, and the system's inability to produce ad hoc reports and worksheets needed for day-to-day work. While there was evidence of sound communications and training practices in place, management needs to manage user expectations as was discussed in section 4.3.
- 4.4.4 A number of stakeholders still feel that Project Gateway should be an electronic system tool that enables timely project management, electronic interaction with third party clients, project monitoring and reporting of results, and automated payment of claims. Although it may not be practical or affordable to make all these changes, management should update its Project Gateway needs assessment to ensure that its future investments will address the most pressing business needs for the system.

Recommendation # 4: Management should conduct a needs assessment for Project Gateway to ensure that future investments will address the most critical business needs for the system.

5.0 Conclusions

- 5.1 WD's IMT Council and Project Gateway Steering Committee are playing a critical governance role to address system shortcomings, improve risk management, monitor progress, and review resource planning strategies for Project Gateway.
- 5.2 IMT Council is demonstrating sound management practice to evaluate short-term Project Gateway investments. The overall audit evidence examined indicates that a sound internal control framework is in place, subject to the recommended improvements included in this report.
- 5.3 The full costing of investments is critical to making proper resource allocation decisions. Management should strengthen its variance reporting on projects approved.
- 5.4 Management should determine whether to carry on with the current system or find an alternative solution to meet WD's critical business needs. In order to do so, management will need proper full costing to determine the actual cost of Project Gateway as compared to alternatives.
- 5.5 Management should communicate investment decisions with the user community in order to manage expectations. A risk exists that system improvements are not being fully used and that user confidence in the system has been eroded.
- 5.6 Management should update its Project Gateway needs assessment to validate that its future investments will address the most pressing business needs for the system.

Summary Conclusions by Criteria Element

Audit Element Area	Audit Assessed Result
Governance and Accountability	Criteria Met
Resource Planning, Monitoring and Reporting	Criteria Partially Met
Risk and Change Management	Criteria Mostly Met
Information and User Involvement	Criteria Mostly Met

6.0 Audit Strategies and Approach

Planning

- 6.1 Audit planning started in October 2009 and fieldwork was completed in March 2010. Pre-engagement meetings and a preliminary survey were completed to facilitate identification of key risks, audit criteria, control elements and audit strategies. WD staff, departmental audit committee and central agency staff were also engaged.

Standards and Methodology

- 6.2 Government of Canada internal auditing standards were used for the audit. It is evidence-based and provides audit assurance that is fully supported. All available evidence has been analyzed considering factors, logic and regional environment; and examined against audit criteria and expectations. Sources of evidence included interviews, risk analysis, verification, regional visits, analytical reviews, elaboration on cause and effect of conditions, background literature, and confirmations as necessary.

Sampling

- 6.3 The identified key risks were prominently considered where sampling was needed. There was limited sampling required in this audit and where needed the auditors judgementally applied discovery sampling methodology.

Audit Team

Donald MacDonald	Chief Audit Executive
John Hagan	Project Leader
Wilfredo Dimailig	Internal Auditor