



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada



System Under Development Review of the Departmental Financial Management System Renewal Project

Audit and Evaluation Branch
In collaboration with Deloitte LLP

December 2015

Canada

List of Acronyms

AAFC	Agriculture and Agri-Food Canada
ADM	Assistant Deputy Minister
AEB	Audit and Evaluation Branch
CAE	Chief Audit Executive
CIOB	Chief Information Officer Branch (of Treasury Board Secretariat)
DFMS	Departmental Financial Management System
DG	Director General
EAAC	External Audit Advisory Committee
ECCC	Environment and Climate Change Canada
EMC	Executive Management Committee
ERP	Enterprise Resource Planning
GC	Government of Canada
PCRA	Project Complexity and Risk Assessment
SAP	Systems, Applications and Products (ERP software)
SSC	Shared Services Canada
SUD	System Under Development
TBS	Treasury Board Secretariat

Prepared by the Audit and Evaluation Branch

Acknowledgments

The review was done in collaboration with Deloitte LLP and was led by Jean-Luc Tétreault, Audit Manager under the direction of Stella Line Cousineau. The review team would like to thank those individuals who contributed to this project and who provided insight and comments as part of the review.

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EXECUTIVE SUMMARY

A System Under Development (SUD) Review of Environment and Climate Change Canada's (ECCC's) Departmental Financial Management System (DFMS) Renewal Project was included in the departmental 2013 Risk-Based Audit and Evaluation Plan approved by the Deputy Minister, upon recommendation by the External Audit Advisory Committee (EAAC).

The purpose of the review was to assess the appropriateness of the project management approach used to successfully implement the Systems, Applications and Products (SAP) software at ECCC.

A SUD Review differs from other internal reviews or audits in its approach, since work is carried out during the implementation project. This review proceeded in parallel with the work of the implementation project team, and interim reports on findings were submitted in December 2014 and February 2015. A briefing on the contents of the interim reports was presented to the EAAC in March 2015.

Overall, the review found that the project management approach used by the DFMS Renewal Project team was appropriate and that project management controls and practices were applied effectively by ECCC. Strong project management practices related to regular and timely reporting of project status, issues and risks; ECCC's focus on the need to ensure that business process changes were well aligned with the implementation of new SAP technology; and the embedding of ECCC functional experts with the technical SAP team at Agriculture and Agri-Food Canada were noted. The review, however, did find several exceptions that posed risks to the overall success of the implementation project. These include risks related to ongoing implementation of asset management functions in SAP, operational support of the new DFMS and internal controls. To address the findings in this report, the following recommendations are presented:

Recommendation 1

The Assistant Deputy Minister (ADM), Corporate Services Branch should ensure that proper governance structure and direction for the implementation of the Enterprise Asset Management module (EAM Phase 2) exists, and that this governance structure includes an active Project Steering Committee.

Recommendation 2

The ADM, Corporate Services Branch and ADM, Finance Branch should ensure that skills related to technical requirements of assets management functions in SAP and to project management skills and practices that were developed by ECCC team members during the project prior to April 1, 2015 are retained for the EAM Phase 2 implementation.

Recommendation 3

The ADM, Finance Branch and ADM, Corporate Services Branch should ensure that support to users through ECCC's support organization is available post-implementation and that support to users is coordinated between the two branches.

Recommendation 4

The ADM, Finance Branch should ensure that the documentation and testing of internal controls impacted by the SAP implementation are completed in a timely manner.

Management Response

The assistant deputy ministers of the Corporate Services and Finance branches agree with the recommendations. The detailed management responses can be found under Section 2 of this report.

1 INTRODUCTION AND BACKGROUND

This System Under Development (SUD) Review of Environment and Climate Change Canada's (ECCC) Departmental Financial Management System (DFMS) Renewal Project was included in the departmental 2013 Risk-Based Audit and Evaluation Plan approved by the Deputy Minister, upon recommendation by the External Audit Advisory Committee.

A SUD review differs from other internal audits in its "real-time" approach, as field work is carried out during the design/development and implementation of the system under development, and the reporting of findings is more informal and timely (see also Annex 1 – Review Methodology and Criteria).

Deloitte LLP was retained to conduct this SUD review. Deloitte LLP has developed a generally recognized approach to conduct SUD reviews in the federal government and has used this approach to review other federal government information technology (IT) implementation projects, including SAP implementation projects.

Environment and Climate Change Canada's (ECCC's) Departmental Financial Management System (DFMS) is a critical contributor to the support of program delivery and resource management in the Department. The DFMS is being renewed to replace ECCC's existing Oracle-based system (referred to as MERLIN) with the Systems, Applications and Products (SAP) software, in line with Treasury Board's Standard on Enterprise Resource Planning Systems.

ECCC migrated its DFMS to SAP software on April 1, 2015; Agriculture and Agri-Food Canada (AAFC) is hosting SAP for ECCC in a shared services partnership. Expected benefits of the DFMS renewal included:

- reduction in overall risks and costs, by leveraging AAFC's investment and expertise in SAP;
- increased alignment with Government of Canada directions and priorities; and
- improved efficiencies and capacity due to common configuration, common financial management business processes and common master data.

Migration to SAP was led by a DFMS Project Team at the Finance Branch, supported by resources from the Corporate Service Branch. SAP end-users, including managers and their staff, were given the opportunity to offer input into the configuration of the new system and supported business processes through a number of working groups, such as communities of practice focused on a specific business practice (e.g. Procurement-to-Payment), and the Business Transformation Advisory Committee.

The DFMS Renewal Project is being undertaken in several phases. Scoping and planning activities, feasibility assessments, resource determination and the development of project approval documents were completed in fiscal year 2013-2014. During this period, ECCC examined comparable SAP implementations in other government departments, had discussions with Treasury Board and developed a high-level definition of its requirements. In February 2013, discussions with AAFC were initiated and a letter of intent to proceed with implementing AAFC's SAP solution at ECCC was signed in June 2013. An assessment of the fit of the SAP solution at AAFC with ECCC's requirements and of the relationship management requirements inherent in a hosted systems environment was also conducted.

In August 2013, ECCC received agreement from all parties, including Treasury Board's Office of the Comptroller General (OCG) and the Chief Information Officer Branch (CIOB) regarding ECCC's migration of its DFMS to SAP, hosted by AAFC. A Memorandum of Understanding (MoU) setting out the goals for the partnership, the roles and responsibilities of the parties, and the financial arrangements that underline the partnership between ECCC and AAFC was signed in October 2013.

Subsequently, the Planning Phase of the implementation project proceeded. Key deliverables documenting Planning Phase activities included the Project Charter and the Business Case to obtain project approval for the Implementation Phase of the project.

Implementation Phase activities began in October 2014. During this phase, the ECCC project team reviewed and documented financial and asset management business processes at ECCC and used revised process designs to support preparation of the SAP system for use by ECCC. Configuration of SAP by a joint AAFC-ECCC technical team at AAFC followed the standard SAP project methodology to design, build and implement the software in preparation for "go-live" on April 1, 2015.

During the course of the SUD review, in December 2014, the DFMS Renewal project team recommended to ECCC's senior management team that additional project work on asset management business processes at ECCC and the SAP functions that support these business processes be completed following ECCC's cutover to SAP on April 1, 2015. This extension of the project, focused on the Enterprise Asset Management (EAM) component of SAP, has been referred to as Phase 2 of the DFMS Renewal project. For clarity, this report refers to ongoing project work after April 1, 2015 as EAM Phase 2. Lead responsibility for managing the implementation of SAP at ECCC shifted from the Finance Branch to the Corporate Services Branch for EAM Phase 2 in early 2015-2016.

2 OBJECTIVE, SCOPE AND METHODOLOGY

Objective

The overall objective of this SUD Review was to assess the appropriateness of the project management approach used to implement SAP at ECCC.

Annex 1 of this report summarizes the criteria used to support review activities, consistent with COBIT¹ and Deloitte's approach to SUD reviews.

Scope

The scope of the review included the following components:

- financial system and business process transformation;
- business case alignment of project management (i.e. through the project plan, approach, communications and coordination of project activities);

¹ COBIT 5: An ISACA Framework; ISACA; 2012. The framework of control objectives for information and related technology includes controls related to the management of IT projects.

- implementation of the IT solution and change management (i.e. business process design, configuration and software development, user acceptance testing, data conversion and cutover, and management of technical IT infrastructure); and,
- business and user readiness (i.e. business processes, data maintenance, access to SAP, user readiness and training).

The scope of the review included project phases and tasks defined in the Accelerated SAP (ASAP) project management methodology and approach, which provides a framework for the above-mentioned components (e.g. resource staffing and key roles, implementation into business areas, implementation into IT production and maintenance, and transition to support).

In addition, the scope of the review included steps taken to prepare the agreement that supports the ongoing operation of the host-client partnership between AAFC and ECCC.

The review also covered a follow-up on a recommendation from the Corporate Accountability and Administrative Renewal / Internal Control over Financial Reporting 2013 internal audit. The recommendation dealt with the timely finalization and approval of key project documents. Project documents inspected during the review included final versions of the *DFMS Renewal Project Charter*, *DFMS Renewal Business Case*, *DFMS Fit-to-AAFC SAP Cluster Solution Assessment Summary Results* (an analysis of the ability of AAFC's SAP system to meet ECCC's functional business requirements), and *DFMS Renewal Project Implementation Phase – Preliminary Business Transformation Strategy*. All were found to have been approved and signed by senior management at ECCC.

To the extent that on-time completion of software configuration and testing activities were critical to ECCC's project timelines, the work of the technical SAP team at AAFC was in scope of the SUD review. As well, project tasks that involved interaction between the DFMS Project Team and the AAFC SAP team regarding SAP implementation processes were included in the scope of the review. However, the scope did not include the review of project management activities at AAFC.

Methodology

A System Under Development (SUD) review is carried out during the design, development and installation of a software system (SAP in this case) and the transformation of business processes dependent on the system to be implemented. A SUD review typically focuses on project management practices and controls that are in place to ensure that the project's outcomes are delivered on time, are of high quality and meet the expectations of the project's sponsor and stakeholders.

The methodology used to conduct a SUD review also differs from the approach taken on other internal audits or reviews in its real-time approach to reporting its findings. Findings are documented as the conduct of the review proceeds, and reporting findings to management on a timely basis is important. A SUD review also differs from a SUD audit and other internal audits in the degree to which project management controls are examined; there is less formal control testing in a review. The review approach was adopted at ECCC to reduce the risk that DFMS Renewal Project deadlines and deliverables would be affected by the review. This approach was presented to ECCC's External Audit Advisory Committee (EAAC) at its meeting in November 2014.

The review team pursued four broad lines of enquiry related to the execution of the DFMS Renewal Project and to ECCC's readiness for the introduction of the SAP-based DFMS on April 1, 2015. These lines of enquiry were: Project Management and Governance, Functional Readiness, Deployment Readiness, and Business Process Readiness.

Based on evidence gathered through the examination of documentation and interviews with project stakeholders, review criteria were assessed and a conclusion for each criterion was determined. Where a significant gap existed between expected findings and the observed practice, the risk of the gap to the success of the project was evaluated, and recommendations for improvement were documented.

The review team prepared and submitted to management two interim reports which included findings and recommendations to date: the first was submitted in December 2014 and the second in February 2015. Fact sheets were used to advise senior management of findings and recommendations, allowing corrective action to be taken by the project team as soon as possible. Findings and recommendations reflect work undertaken until the end of the Conduct Phase of the review (March 2015).

A briefing on the contents of the interim reports was presented to the EAAC at its meeting in March 2015.

Statement of Conformance

This review conforms to the *Internal Auditing Standards for the Government of Canada*, as supported by the results of the quality assurance and improvement program, and applied in the context of a review.

In our professional judgement, sufficient and appropriate procedures have been conducted and evidence gathered to provide reasonable assurance of the accuracy of the conclusions reached and contained in this report. However, the controls were not tested and the conclusions were based on a comparison of the situations as they existed at the end of the fieldwork (March 2015) against the review criteria.

3 FINDINGS AND RECOMMENDATIONS

Overall, the review team found that the project management approach used by the DFMS Renewal Project team was appropriate and that project management controls and practices were applied effectively by ECCC. Strong project management practices related to regular and timely reporting of project status, issues and risks; ECCC's focus on the need to ensure that business process changes were well aligned with the implementation of new SAP technology; and the embedding of ECCC functional experts with the technical SAP team at Agriculture and Agri-Food Canada were noted. The review, however, did find several exceptions that posed risks to the overall success of the implementation project.

In all, seven findings on project risks related to ECCC's readiness to begin using SAP on April 1, 2015, and detailed recommendations for addressing these risks, were

communicated by the review team in its two interim reports to the ECCC project team during the course of the review. These seven findings were related to:

- composition and role of project steering committees in project governance for the initial implementation of DFMS;
- preparation of agreements to govern the ongoing host-client relationship with AAFC;
- documentation and testing of internal controls over financial reporting;
- testing of new SAP asset management functions by knowledgeable business users at ECCC;
- preparation of the ongoing support organization for SAP users at ECCC;
- leveraging the experience gained by the DFMS Renewal project team prior to April 2015 in upcoming EAM Phase 2 of the project; and
- governance of the upcoming EAM Phase 2 of the project.

Some findings and recommendations were focused on point-in-time risks that were specific to the implementation phase of the project, while others dealt with broader risks to the overall success of the implementation, the ongoing support of the system and its use by ECCC. In March 2015, a briefing was provided to the External Audit Advisory Committee (EAAC) on the seven findings, as well as comments provided by ECCC management on their response to recommendations made by the review team.

Of the seven findings reported during the review, four continue to be relevant to ECCC following the SAP implementation go-live date of April 1, 2015, as reflected through the remaining recommendations.

3.1 Project Management and Governance

This line of enquiry includes review criteria related to:

- project management and governance structures;
- composition and activities of project steering committees;
- development and maintenance of an overall project plan;
- management of resources deployed to deliver project tasks; and
- management of project risks and issues.

Project management activities related to the development and maintenance of project plans were effective, as were the reporting of project risks, project issues, and the status of actions taken to address these risks and issues.

The review found that although there appeared to be effective oversight of the DFMS Renewal project by ECCC executive management and governance structures, an opportunity for improvement was noted with respect to better representation of all project stakeholders in project governance.

The review also found that the management of project resources was generally effective; however, a recommendation was made concerning the continuity of project resources for the upcoming EAM Phase 2 of the project.

EAM Phase 2 Governance Structure and Direction

Continuation of the DFMS Renewal project to implement Enterprise Asset Management (EAM) across all business units at ECCC is planned for FY2015-2016 and will be sponsored by the ADM, Corporate Services Branch (CSB). Although sponsorship of the project is changing, the review team expects EAM Phase 2 to be governed effectively and that governance will ensure continuity with project work completed to date.

The review team found that asset management business practices, processes and supporting systems vary widely among business units at ECCC, challenging project milestones related to business process definition, data migration, and testing activities for asset management functions.

Strong governance over this work will be required in EAM Phase 2 to ensure that deadlines are met and that tasks are completed. Initiating and sustaining a wholesale change in the culture of the business organizations—i.e. from one where developing and maintaining unique systems and processes is acceptable to one using a common system (SAP) and approach—will require top-down leadership over change management activities in the project.

Recommendation 1

The ADM, Corporate Services Branch should ensure that proper governance structure and direction for the implementation of the Enterprise Asset Management module (EAM Phase 2) exists, and that this governance structure includes an active Project Steering Committee.

As part of this recommendation, the ADM, Corporate Services Branch should consider:

- a) Structuring EAM Phase 2 as a distinct project with formal governance structures and procedures in place, including a Project Steering Committee led by at least a Director General-level executive;
- b) Ensuring that the Project Steering Committee includes management representatives from the Finance Branch to maintain continuity with the work of the DFMS Renewal Project completed to date; and,
- c) Ensuring that the Project Steering Committee meets regularly to review project status, issues and risks, and monitor progress against planned milestones. Meetings of this committee should be held at least monthly until SAP implementation activities are completed.

Management Response

Corporate Services Branch Response

Agree – A project plan for EAM Phase 2 is in progress, describing project deliverables as well as the governance structure required to successfully execute the project plan. The governance extends from the executive sponsor level down to technical working committees and includes the creation of a Project Executive Committee at the ADM level.

Resources for Asset Management Implementation

The scope of work to implement SAP's enterprise asset management (EAM) functions for ECCC represented a higher potential risk to the overall success of the DFMS Renewal project, due to factors that include:

- complexity of business processes and variability of business processes among various user communities within ECCC;
- differing technical system requirements among user communities, often dependent on the type of assets managed;
- a large number of existing legacy asset management software tools, ranging from MERLIN's Asset Lifecycle Management (ALM) module to simple spreadsheets or other "black book" systems;
- geographical dispersal of business units and prospective users (i.e. small numbers of users in many locations, including remote locations), complicating participation of some business representatives regarding requirements definition, testing, and training; and
- AAFC did not include EAM in its configured SAP solution prior to ECCC's partnership on DFMS Renewal, so EAM requirements were "net new" to the technical team and thus required more design, configuration and testing time than other SAP modules.

The DFMS Project Team recommended to EMC in December 2014 that an additional phase of the DFMS Renewal project be defined to focus on completion of the EAM implementation in SAP. Preliminary, high-level estimates of additional funding and human resource requirements were provided to EMC in support of the recommendation.

The review team expected to find that planning for this additional work would be structured so that the upcoming EAM Phase 2 of the project would be continuous with the current DFMS Renewal Project and that key project resources would be retained for EAM Phase 2 to ensure that knowledge of the work conducted to date would not be lost.

The review team found that additional project phases were not anticipated in approved project documentation, including the Project Charter and Business Case. The review team also noted that the decision to limit the scope of EAM work in the initial phase of the project reduced the risk that delays on asset management project activities would threaten the planned implementation of SAP at ECCC on April 1, 2015. However, significant risks to ECCC remain regarding the management of the continuation of the work on EAM functions.

In particular, there is a risk that the departure of key DFMS project personnel who are scheduled to leave the project after the April 2015 implementation could result in a loss of continuity in the management of the project and a loss of expertise and technical knowledge gained on the project to date.

There may be a loss of expertise in terms of asset business processes, their configuration in SAP relevant project management processes and lessons learned if there is inadequate knowledge transfer from the current project team. Reduced continuity and a loss of technical knowledge among project personnel could also affect

the ability of the EAM Phase 2 team to accurately estimate the time and cost required to complete the remaining work.

Recommendation 2

The ADM, Corporate Services Branch and ADM, Finance Branch should ensure that skills related to technical requirements of assets management functions in SAP and to project management skills and practices that were developed by ECCC team members during the project prior to April 1, 2015 are retained for the EAM Phase 2 implementation.

As part of this recommendation, the ADM, Corporate Services Branch and the ADM, Finance Branch should consider:

- a) Ensuring that the project manager and key functional business team members from the initial DFMS implementation (i.e. on April 1, 2015) work closely with the EAM Phase 2 project team so that relevant knowledge of business processes, SAP configuration, documentation standards and templates, and other lessons learned from the work undertaken to date are not lost; and,
- b) Ensuring that existing project documentation, expert resources, and any tools and techniques developed to assist the team with project tasks related to business requirements definition, data cleansing, data migration and organizational change management are included in knowledge transfer activities.

Management Responses

Corporate Services Branch Response

Agree – The transfer of knowledge between the two projects groups was completed prior to the launch of SAP in April 2015. Communication between the two groups continues, as the work on ramping up the EAM 2 project continues. Formal project management methodologies will be applied to the new project to optimize the delivery of the new system.

Finance Branch Response

Agree – Where possible, Phase 1 resources have been extended into Phase 2. Knowledge transfer to Corporate Services Branch will be to the greatest possible extent.

3.2 Functional Readiness

This line of enquiry includes review criteria related to:

- involvement of users in the documentation of business requirements and changes to requirements;
- certification and accreditation of IT security for software applications; and
- testing the new software system².

Overall, the review team found that project tasks related to the functional readiness of the new SAP-based DFMS were well managed. ECCC business stakeholders were involved in the specification of business requirements and the documentation of business processes that were in scope for the DFMS Renewal Project. In particular, the review team noted that communities of practice (CoPs) were established to focus on business change and technical requirements associated with a specific set of business processes, such as procurement-to-payment. The CoPs were a communication link between the DFMS Renewal Project team and business units within ECCC; each CoP was led by a Business Transformation team lead from the DFMS Renewal project team.

The review noted that project activities were well coordinated with the AAFC SAP project team. Embedding of ECCC functional experts with the team at AAFC provided strong communication and knowledge exchange, particularly with respect to ECCC specific requirements such as those related to asset management.

The review team also noted that a stream of project activities was dedicated to ensuring that the SAP financial system, hosted by AAFC, was assessed by ECCC's IT security specialists to ensure that appropriate certification and accreditation of the application was conducted prior to its implementation. Activities associated with the preparation and migration of legacy data from ECCC's MERLIN system were adequately planned and monitored.

One finding, previously communicated to management, was related to the adequacy of user acceptance testing of SAP by ECCC prior to implementation. The review found that test plans included an abbreviated testing approach for SAP functions already running in production at AAFC, but did not include more detailed user acceptance testing (UAT) cycles for enterprise asset management (EAM) functions, which were new to the AAFC SAP environment. The review recommended that sufficient user acceptance testing for SAP functions that were specific to ECCC and new to the AAFC SAP environment be conducted prior to implementation. The Finance Branch indicated that, as the project uses an adopt/adapt approach and the core SAP project is already configured, there was no need for user acceptance testing. However, a proof of concept was demonstrated to users for EAM, and the revised proof of concept was approved by key

² Examples: development of a test plan and performance of software testing, including unit testing, integration testing and user acceptance testing of newly-developed software functions to ensure that business requirements are met, testing interfaces to other software applications that rely on data from DFMS, testing access security roles, testing the accuracy of data migration procedures and the accuracy and completeness of migrated data, and testing the system's technical infrastructure to ensure that performance requirements (e.g. network connectivity, response time) are met. However, testing of key internal controls, business processes and some IT security controls are covered under section 2.4.

users (e.g. Meteorological Service of Canada and CSB) and is planned to be used as part of training sessions.

3.3 Deployment Readiness

This line of enquiry includes review criteria related to:

- the existence of cutover plans and “go/no-go” criteria that must be met for software releases to be implemented into production use;
- communication of plans by the project team to user communities on the cutover to new systems or new releases of existing systems;
- plans to help user communities manage the change involving the introduction of a new application system; and
- project activities related to the development of ongoing support capabilities for users of the new application system.

Overall, the review team found that project tasks related to the readiness of ECCC to migrate to the new SAP-based DFMS were well managed. The DFMS Renewal Project prepared detailed cutover plans and lists of critical go/no-go criteria as controls over decisions and activities related to the migration from its legacy MERLIN system to SAP on April 1, 2015.

Communications plans and a broad business transformation strategy were also included in project plans, and activities described in these plans were in progress at the time of the review. The review team also noted that organizational change management plans will be critical to the success of ongoing work related to asset management business functions in EAM Phase 2.

One finding was communicated to management regarding this line of enquiry; it was related to the adequacy of preparations completed to establish an effective user support organization for users of SAP at ECCC, as summarized in the following paragraphs.

Readiness and Coordination of ECCC Support Organizations

The review team expected to find project tasks intended to set up an effective user support organization for the SAP-based DFMS to be included in the project plan. It also expected the support organization to include processes and tools to ensure a seamless coordination with SAP support at AAFC. Finally, the review team expected key ECCC managers and staff who would operate the support organization to participate in its setup.

Environment and Climate Change Canada reorganized support for its enterprise financial system, migrating from a systems-oriented support model to a client-oriented one. The support organization includes a functional help desk to assist users of the system navigate through menus, answer questions about specific transactions or other system features, diagnose error messages encountered during processing, and route requests that cannot be solved to other support organizations (e.g. ECCC’s national IT help desk, or AAFC’s SAP help desk). The support organization also provides ongoing SAP training and is responsible for maintaining common master data stored in SAP and for managing controls over the operation of the system, including those related to the

management of system access, assignment of security profiles to users and segregation of duties.

ECCC's support organization must also be managed to coordinate efficiently and seamlessly with AAFC's SAP support organization, so as to provide effective service to ECCC's SAP user community, ensure compliance with support principles and standards that are documented in service level agreements (SLAs) between ECCC and AAFC, and maintain controls related to the operation of the system.

Operational demands are placed on the support organization immediately upon opening the new DFMS for production use. Gaps in understanding of the support organization's function, in business procedures to be followed, in staffing of support positions and in the readiness of tools, such as the help-desk service ticket software system, increase the risk that errors or problems experienced by early users of the system will not be addressed efficiently; there is an added risk that the system implementation will be viewed as unsuccessful by the user community.

The review team found that work to develop and implement a support organization for DFMS appeared in the project plan, that planned steps were being carried out and that the project team had begun to communicate how the support organization will work. In particular, attendees of SAP training in early February 2015 received instructions on how to contact support resources.

The review team also found that work associated with the completion of the installation and configuration of the ticket system software to be used by the new support organization had been delayed.

Finally, the review team found that ECCC managers identified as responsible for the support organization after implementation had limited involvement in project work related to setting up the support organization.

Recommendation 3

The ADM, Finance Branch and ADM, Corporate Services Branch should ensure that support to users through ECCC's support organization is available post-implementation and that support to users is coordinated between the two branches.

As part of this recommendation, the ADM, Finance Branch and ADM, Corporate Services Branch should consider:

- a) Ensuring that work required to complete installation and testing of the Assyst ticketing system be reviewed and priorities confirmed by ECCC management so that support procedures and related infrastructure are in place prior to first use of DFMS in March 2015;
- b) Ensuring that the project work stream that is dedicated to setting up the operational support function for DFMS communicate regularly with managers and lead functional resources responsible for its operation after implementation, so that these stakeholders are aware of the status of project work and that their efforts are coordinated with those of the DFMS Renewal project team; and

- c) Ensuring that principles, procedures and infrastructure used in the functional support organization to be operated by the Finance Branch be adopted by the Corporate Services Branch when a support organization is established for asset management users of SAP.

Management Responses

Corporate Services Branch Response

Agree – Support for clients and stakeholders of EAM will be integrated with the support teams in place for the new SAP and HRG systems.

Finance Branch Response

Agree.

3.4 Business Process Readiness

This line of enquiry includes review criteria related to:

- the existence and content of user training programs for SAP; and
- the readiness of ECCC's internal controls over financial reporting (ICFR) in the SAP environment, the clarification with AAFC as to each department's responsibility for control procedures and the update of control frameworks.³

Overall, the review team found that project tasks related to the readiness of ECCC to begin using the new SAP-based DFMS were well managed. However, exceptions were noted.

The review team found that the DFMS Renewal Project had appropriately planned and prepared for training courses to be delivered to business users at ECCC and that Wave 1 training courses (SAP users were divided into training cohorts based on their assessed priority for access to the system) were delivered to user communities according to the plan. Evaluations of training courses indicated that the course material was relevant to the training objectives. The review team noted that the training material provided to the team by the AAFC SAP team had been substantially modified to include ECCC-relevant references and exercises, and effective job aids (e.g. an automated MERLIN-to-SAP account code translation tool) were developed and ready for use by the training teams when the classroom sessions began.

The review team also noted that ECCC seized the opportunity presented by the implementation of a new financial system to standardize and document business processes to be supported by the new system. Business process changes, a key component of the DFMS Renewal project at ECCC, included the identification of business process control points in process documentation, but did not include detailed design effectiveness testing of control activities.

³ For example, to reflect changes to business process controls, application security controls, IT general controls specific to ECCC, controls over interfaces between SAP and other information systems, and controls over the conversion of data from existing systems to SAP.

The following finding was communicated to management related to controls, specifically regarding the readiness of ECCC's internal controls over financial reporting.

Update and Testing of Internal Controls

Since ECCC is changing its financial system of record and is modifying the definitions of its major financial business processes, the review team expected to find a stream of activity in the DFMS Renewal project plan dedicated to the review and assessment of the impact that changes to ECCC's systems and processes would have on its internal controls over financial reporting (ICFR). Specifically, the review team expected that the scope considered by this stream of work would include the development of control frameworks to support the newly designed ECCC-business processes and specific design effectiveness testing relating to those controls and covering business process controls, application security controls, IT general controls specific to ECCC, controls over interfaces between SAP and other systems, and controls over data conversion from existing systems to SAP.

The review team found no specific stream of activity in the project plan to review and assess internal controls. The review team obtained completed business process documentation and noted that control points are captured in revised business process documentation, but did not find that control activities associated with these control points had been formally documented in a control framework to assess the completeness of the controls, nor had they been assessed for design effectiveness.

Recommendation 4

The ADM, Finance Branch should ensure that the documentation and testing of internal controls impacted by the SAP implementation are completed in a timely manner.

As part of this recommendation, the ADM, Finance Branch should consider:

- a) Putting a plan in place to identify controls and document an ICFR framework to support ECCC's new, SAP-enabled business processes; and
- b) Ensuring that the scope of internal controls to be documented and tested includes business process controls (including application security), IT general controls specific to ECCC and controls over interfaces between SAP and other systems.

Management Response

Finance Branch Response

Agree – The guiding principle for the development of the ECCC business processes within a limited timeline was to ensure alignment with the existing internal control maps, Treasury Board guidelines and the financial management business processes (FMBPs). As a result, these processes are a more detailed layer of the FMBPs and are open to the development of additional layers, such as the level 4 and level 5 business procedures or practices, and application of the internal control validation and control points.

4 CONCLUSION

Overall, the review team found that the project management approach used by the DFMS Renewal Project team was appropriate; however, the review team noted several areas where improvements would be required to reduce some risks to the Department:

- There should be a proper governance structure and direction for the implementation of the Enterprise Asset Management (EAM) module (Phase 2), and this governance structure should include a Project Steering Committee that meets frequently, has broad ECCC representation and formalizes its proceedings;
- Skills related to technical requirements of asset management functions in SAP and to project management skills and practices that were developed by ECCC team members during the project prior to April 1, 2015 should be leveraged for EAM (Phase 2) implementation;
- Support to users through ECCC's support organization should be available beginning April 1, 2015, and support to users should be coordinated between the Finance and the Corporate Services branches; and
- Documentation and testing of internal controls impacted by the SAP implementation should be completed in a timely manner.

Annex 1 Methodology

Review Criteria

Review criteria were developed to address risks to the DFMS Renewal Project from two sources:

- inherent risks that, based on the experience of the review team, are frequently associated with projects of this type within the federal government; and,
- risks specific to ECCC that were identified during the review of DFMS Renewal project documentation and preliminary interviews with project stakeholders.

Criteria to address these risks were organized into four broad lines of enquiry, as shown in the table below. Lines of enquiry, project risks and corresponding review criteria were developed and validated against the TBS project risk framework (which serves as the basis for the TBS's Project Complexity and Risk Assessment workbook and methodology) and IT audit frameworks found in COBIT 5⁴ and the Global Technology Audit Guide⁵ (GTAG):

Review Criteria	Sources of Criteria	Met/Not Met
1. Project Management and Governance		
1.1 Project management and governance structure has been established to provide oversight and ensure deadlines are met, scope is adhered to and objectives are met.	COBIT 5: BAI01.07, BAI01.11, BAI02.04. GTAG 12: 1.6, 3.3, 3.4	Partially Met ⁶
1.2 A steering committee has been established that has a clear mandate and representation from key stakeholder groups.	COBIT 5: BAI01.01, BAI01.07. GTAG 12: 3.4, 3.5, 3.7	Partially Met ⁷
1.3 A project plan has been established and accepted by all parties and stakeholders to assist in meeting project deadlines and objectives.	COBIT 5: BAI01.08 GTAG 12: 2.1, 2.3, 2.4, 2.5, 2.6	Met

⁴ COBIT 5: An ISACA Framework; ISACA; 2012.

⁵ Global Technology Audit Guide 12, Auditing IT Projects; The Institute of Internal Auditors; 2009.

⁶ Governance over the DFMS Renewal project was adequate; consistent governance structures and strong leadership over project activities will be required to ensure that implementation of EAM is completed on time and within the budget established for the next phase of the project.

⁷ Steering committees were established at ECCC; a joint governance committee, with participation of executives from ECCC and AAFC, was not part of the governance structure for the project.

Review Criteria	Sources of Criteria	Met/Not Met
1.4 Adequate and appropriate resources have been assigned to execute the project plan.	COBIT 5: BAI01,08. GTAG 12: 2.3, 13.3	Not Met ⁸
1.5 Issues and risks are formally identified, tracked, managed and resolved in a timely and appropriate manner.	COBIT 5: BAI01,01, BAI01.10, BAI01.06, BAI02.03. GTAG 12: 3.7	Met
2. Functional Readiness		
2.1 Changes to financial business processes have been analyzed and reviewed with business users.	COBIT 5: BAI02,01, BAI03.03, BAI03.09. GTAG 12: 4.1, 4.2	Met
2.2 Documentation on project business requirements, including change requests, has been developed and approved by project stakeholders.	COBIT 5: BAI03.09. GTAG 12: 2.1	Partially Met ⁹
2.3 Application security requirements have been analyzed and a plan has been established to ensure adherence to departmental and GC security requirements.	COBIT 5: BAI03.02, BAI03.05. GTAG 12: 8.12, 11.1, 11.3	Met
2.4 A comprehensive testing strategy and plan has been developed for all business process changes and data migrations. Testing includes business user involvement.	COBIT 5: BAI01.08, BAI03.07, BAI07.03. GTAG 12: 6.1, 8.8, 9.1	Partially Met ¹⁰

⁸ Adequate and appropriate resources were assigned to execute the project to date; the preparation of accurate plans and estimates, and the continuity of work on the upcoming Phase 2 of EAM is threatened by the departure of key project team members.

⁹ Business requirements were developed and approved for the April 1 implementation of SAP; divergence in processes among asset management organizations at ECCC and the departure of key project personnel are risks to the success of Phase 2 of EAM.

¹⁰ A testing strategy and plan were developed; testing did not include formal user acceptance testing by ECCC business users of new asset management functions in SAP.

Review Criteria	Sources of Criteria	Met/Not Met
2.5 Adequate testing has been planned for data migration.	COBIT 5: BAI03.07, BAI07.03, GTAG 12: 7.1, 7.3	Partially Met ¹¹
3. Deployment Readiness		
3.1 A system cutover plan is part of the overall project plan and includes documented conversion specifications.	COBIT 5: BAI01.08, BAI05.05, BAI07.02. GTAG 12: 14.1, 14.2	Met
3.2 For major milestones, management documents go/no-go criteria and subsequent decisions.	COBIT 5: BAI01.07, BAI01.11.	Met
3.3 A communication plan informs stakeholders and management of the progress of the roll-out.	COBIT 5: APO08.04, BAI05.05. GTAG 12: 3.1	Met
3.4 An organization-wide change management strategy to identify and document technical and operational aspects of the cutover to SAP at ECCC has been prepared and implemented.	COBIT 5: BAI05.05, BAI07.02. GTAG 12: 3.1, 12.1, 14.1, 14.2	Partially Met ¹²
3.5 ECCC has established an appropriate operating framework with AAFC related to its post-project role as a service provider to ECCC for SAP. The operating framework includes a process for adding changes to SAP that impact only ECCC users and for supporting ECCC-specific SAP functions.	COBIT 5: APO09.04 APO10.03. GTAG 12: 16.1, 16.3	Partially Met ¹³

¹¹ Adequate testing has been planned for data migration; continuity of work on asset management data migration in Phase 2 of EAM is at risk due to the departure of key project personnel.

¹² A change management strategy was prepared and implemented; implementation of changes to asset management business processes will be completed in Phase 2 of EAM.

¹³ An appropriate operating framework with AAFC was established; ECCC will operate separate support organizations for Finance/Procurement and Asset Management, requiring coordinated management of the host-client relationship with AAFC.

4. Business Process Readiness		
4.1 A training program has been developed and executed prior to deployment of the new system; affected business functions are trained prior to implementation.	COBIT 5: BAI05.05, BAI05.07. GTAG 12: 12.2	Met
4.2 Business process controls are reviewed for potential changes based on changes to business processes. If there are changes, documentation is updated accordingly.	COBIT 5: EDM01.03, MEA02.01, DSS07.04. GTAG 12: 11.2, 16.4	Not Met ¹⁴

Project Key Dates

Opening conference (launch memo)	August 2014
Review plan completed	October 2014
Review plan to EAAC for information	November 2014
Interim reports	December 2014, February 2015
Interim report presented to EAAC	March 2015
External Audit Advisory Committee tabling	June 2015
Deputy Minister approval	December 2015

¹⁴ Documentation prepared by the business transformation teams identifies control points in all processes; analysis of controls did not include update of existing internal control matrices, nor creation of new controls documentation.