




Unclassified

Audit of Costing Practices

September 2020





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1. BACKGROUND

1.1 Context

In 2019, Treasury Board (TB) published the Guide to Cost Estimating, which replaced the 2016 Guidelines on Costing. The new guide provides practical guidance for departments on how to develop credible cost estimates, and presents a four-step approach to costing.

The Employment and Social Development Canada (ESDC) Costing Policy requires the Department to have accurate, relevant and timely costing information that supports decision making at all levels of the organization. Accurate and complete cost estimates require high-quality and timely information to support decisions.

ESDC manages in excess of \$146 billion in public funds to deliver the programs under its mandate, including \$3.3 billion in operating funds to manage its day-to-day operations¹. Inaccurate or incomplete costing may cause cost overruns or budgetary lapses in both major projects and implementation of programs, resulting in internal financial pressures or lapses. The need to improve costing information has been identified by TB as a key strategic objective.

1.2 Audit objectives

The objectives of this audit were to assess whether the Department's:

- costing process and methodology are in compliance with the TB Guidelines on Costing² and are consistently applied across the Department
- cost estimates are reliable; process to support the requirement for the Chief Financial Officer (CFO) attestation is adequate

1.3 Scope

ESDC's costing landscape includes costing to establish resource requirements (Resource Determination Model), costing of Cabinet proposals, project costing and activity-based costing.

This audit focused on project costing only. The audit scope included all types of projects³ completed during the period from April 2018 to June 2019:

- Major projects greater than \$1,000,000

¹ Source of data: ESDC Departmental Plan for fiscal year 2020 to 2021

² The TB Guidelines on Costing was in effect during the audit period. It was superseded by the Guide to Cost Estimating published on June 10, 2019.

³ The thresholds for major, minor and small projects at ESDC have been revised following TB reset of a number of policy instruments on April 11, 2019. These numbers reflect thresholds in effect during the audit period.



- Minor projects between \$250,000 and \$1,000,000
- Small projects under \$250,000

Costing accuracy was not examined in the context of this audit.

1.4 Methodology

The audit was conducted using a number of methodologies including:

- Reviewed and analyzed ESDC's costing framework to assess its alignment with the TB Guidelines on Costing. Elements of ESDC's framework that were reviewed and analyzed include the Costing Policy, Costing Process and Guide to Project Costing and Reporting
- Performed walkthroughs
- Interviewed management and staff
- Reviewed a judgmental sample of project costing workbooks and documentation and performed gap analysis on ESDC's costing practices to identify areas for improvement, based on best practices recommended by the TB Guidelines on Costing

The approach and methodology followed the TB *Policy on Internal Audit* and the *International Standards for the Professional Practice of Internal Auditing*. These standards require that the audit be planned and performed in such a way as to obtain reasonable assurance that the audit objectives are achieved.

2. AUDIT FINDINGS

Project costing at ESDC

ESDC has implemented a stage-gated process for project management. The stage-gate approach segments the project lifecycle into a series of activities (stages) and decision points (gates). Stages represent the project progress, gates are point-in-time where decisions are made by the appropriate governance body to continue investing in the project, based on the information available at the time. Gates occur at the end of project stages.

ESDC uses a standardized costing template to establish the cost estimated to deliver the project. The costing process requires the Project Manager (PM) and the Financial Management Advisor (FMA) to collaborate on the development of sound cost estimates and effective expenditure management for each of the five stage gates which include the justification, initiation, planning, execution and closure stages of a project.

Requirements on the accuracy of cost estimates vary as the projects progress from Gate 1 to 5. Cost accuracy could go from $\pm 100\%$ at Gate 1 to $\pm 50\%$ at Gate 2 to $\pm 10\%$ at Gate 3. Cost variance needs to be explained at each gate. At Gate 5, the variance between the actual cost and cost estimates are documented by completing variance analysis and lessons learned.

2.1 ESDC's costing process and methodology are consistent with TB Guidelines on Costing

The departmental costing processes and procedures are documented

The Strategic Financial Analysis and Costing (SFAC) Unit within the CFOB provides costing policies, directives, guidance and tools to ensure departmental compliance to TB costing related financial policies. The departmental costing process is documented through ESDC's Costing Policy and the Guide to Project Costing and Financial Reporting.

The ESDC Costing Policy is under review and was last updated in April 2018. The objective of this policy is to ensure a consistent application of costing methodologies outlined by TB. As a reference, the seven-step approach recommended by the TB Guidelines on Costing is included in the policy.

The departmental costing methodology is aligned with TB Guidelines on Costing

The audit compared ESDC's costing methodology in effect during the audit period to the TB Guidelines on Costing. The objective was to assess whether ESDC's costing methodology followed the principles and best practices outlined by the TB Guidelines on Costing.

The TB Guidelines on Costing encourage Departments to use a seven-step approach to costing. This approach includes establishing the purpose of the costing exercise, defining



the elements to be costed and classifying costs as direct and indirect costs. Direct costs would include hiring additional project employees, while indirect would occur whether the project is undertaken or not, such as the reallocation of overhead costs and indirect branch support costs. The other steps of the costing process are the attribution of costs to each direct and indirect cost component, the validation and sign-off of the costing result.

The departmental costing methodology, established in ESDC's Guide to Project Costing and Financial Reporting, supports fundamental costing principles and best practices that are in line with the TB Guidelines on Costing. The audit found ESDC's Guide to Project Costing and Financial Reporting in alignment with the TB Guidelines on Costing as the process and requirements are comparable to the seven-step approach.

ESDC has developed a costing tool for cost estimates

SFAC developed a Microsoft Excel-based costing tool to develop estimates of costs for projects, TB Submissions (TB Sub) and Memorandum to Cabinet (MC). The users of the tool include the FMA, PM and other project team members. They also have the support of the Costing Tool User Guide, a document that provides step-by-step instructions.

The audit found this Costing Tool adequate for the compilation of cost components as it provides a good summary of the purpose of the different tabs, clear instructions on how to input data and adequate categorization of the direct and indirect costs that are attributed to each cost component.

The audit reviewed costing workbooks for all sampled projects, which were prepared using the standardized costing tool. The audit team found the workbooks allow for easy validation of salaries, third-party source data for pension and benefits costs as well as cost for services provided by Shared Services Canada (SSC).

Costing practices are consistent across the Department and aligned with TB Guidelines on Costing

The audit team reviewed a sample of projects and found all key elements of the costing process were present:

- The purpose of the costing was properly defined in the business case for the projects
- The elements to be costed were adequately identified in the costing tool
- Costs were correctly attributed to the elements to be costed and categorized as direct costs and/or corporate costs. FMAs properly approved the costing, and authorities signed off on the costing result

Overall, the audit found all sampled projects followed the seven-step approach outlined by the TB Guidelines on Costing.



2.2 Opportunities exist to strengthen the cost estimation practices

Robust cost estimation requires quality data from reliable data sources, reasonable costing assumptions, due diligence activities and regular monitoring of actual to forecast costs. In addition, leveraging of lessons learned is important for continuous improvement of the costing practices. The audit assessed these key aspects for the sampled projects.

Costing data and data sources

The audit found costing data and data sources were generally reliable.

Actual expenses and cost set up by TB/SSC

From Gate 1 to Gate 5, actual expenses incurred are taken from Systems Applications and Products. Systems Applications and Products is the departmental financial management system and the Department's book of records. It is the authoritative source of financial data.

Salaries, Employee Benefit Plan costs as well as costs for services provided by SSC, are set by other Government of Canada agencies, namely TB and SSC. These cost elements are automatically extracted into the costing workbook from pre-populated standardized tables and are based on assumptions made about the number of employees required for the project, their job category and their level. CFOB management informed the audit team that these costs are updated as soon as TB and/or SSC updates them. During our file review, we found that data related to salaries, Employee Benefit Plan costs, and costs for services provided by SSC were accurate and taken from reliable sources. As a result, they contribute to the reliability of cost estimates.

Internal services costs

Indirect costs for internal services are established and made available to all users by CFOB. During our review of sampled projects, we found that correct values were used for internal services costs. As a result, they also contributed to the reliability of cost estimates.

Direct costs

Direct costs for goods or services provided by external vendors are either established based on the expert judgment of the PM and validated by the supporting and sponsor branch FMAs or quotes from external vendors. Based on our review of sampled projects, we found that when expert judgment was used to establish the cost of goods or services provided by external vendors, there was not sufficient documentation to provide evidence that validation was performed by the FMAs. As a result, it was not possible to confirm the reliability of these costs which could negatively impact the reliability of cost estimates.

Costing assumptions

Internal services costs

The audit found that assumptions related to internal services costs were kept up to date and were consistently reflected in cost estimates.

Until they have been incurred, internal services costs and the services and initiatives that they affect, cannot be known with certainty. As a result, internal services costs are based on departmental management's assumptions.

At ESDC, CFOB establishes assumptions to estimate the cost for internal services. During interviews with CFOB management, we were informed that CFOB updates these cost assumptions every year based on previous years' average departmental costs as well as anticipated internal costs that are driven by signed contracts, market rates and policy decisions.

We found the update frequency for the costing assumptions related to internal services is adequate. Updating these assumptions more frequently may result in more volatility, whereas updating them less frequently may result in stalled cost estimates.

Level of resources required

The audit found assumptions related to the level of resources required were not documented.

The costing tool documents the unit cost of each resource category required to complete the project, such as a PM in the Project Administration job classification. However, it is equally important to understand how the level of the PM and the number of PMs have been determined. Based on our review and discussions with the FMAs and CFOB management, these costing assumptions were set by the PM, the sponsor (in other words, the business expert), and reviewed by the FMA. However, no documentation was available in the project files reviewed to explain how these assumptions were established and validated. As a result, the cost estimate may not be reliable as the number of employees required and the job classification levels may not be accurate.

Due diligence activities

In accordance with the seven-step approach outlined by the TB Guidelines on Costing, departments are expected to have an internal sign-off process for all costing exercises to ensure adequate consultation, quality assurance, internal control and accountability.

At ESDC, in collaboration with other stakeholders such as PM, SSC and project team members, FMAs from CFOB are responsible for performing due diligence of costing by validating and confirming the result of the costing process as part of the Department's challenge function. However, the audit team could not find adequate documentation to substantiate the depth and breadth of the due diligence performed by FMAs. During interviews with FMAs and CFOB management, the audit team received confirmation that the due diligence process was followed. The FMAs and CFOB management also



acknowledged the difficulty to retrieve any such documentation as there was no centralized documentation process established during the audit period. As it was not possible to obtain evidence that all the steps of the due diligence process were followed by FMAs before providing their attestation, the reliability of cost estimates cannot be confirmed.

Actual to forecast variances are monitored

Monitoring actual to forecast variance is important to identify potential issues and establish timely corrective measures. File review confirmed that variances between actual and forecast costs were monitored quarterly and as projects moved through gates; which is in line with ESDC's Guide to Project Costing and Financial Reporting.

The audit team believes that the quarterly review of forecast variance is adequate. Higher review frequency may not be practicable given the time required to gather all relevant data.

Periodic project forecasting exercises

Project forecasting exercises are done four times per fiscal year as they coincide with the departmental financial forecasting exercises done at periods 3, 6, 8 and 10. Project managers, with the support of their FMA, provide a projection of the project's cost by adding estimates to complete projects to actual expenditures. During this exercise, FMAs have an opportunity to challenge the costs of projects. The revised costings are captured in the Project Management Information System and in the cost workbooks of the PMs.

This exercise feeds into the production of the project's monthly Executive Project Dashboard which is presented at the Major Project Investment Board and Director General Project Oversight Committee. This report shows the health and status of a project by means of key project metrics such as cost. It identifies the variance between the project's approved planned amount and its most recent forecast done at periods 3, 6, 8 or 10. The magnitude of the variance generates the project's cost health indicator showing as green (<10% variance), yellow (10%-20% variance) and red (>20% variance) to easily identify projects that may require more attention. A Project Portfolio Dashboard report is also available to provide a high-level overview of project health indicators and trends for multiple projects. The primary audience for this report is senior project executives and others who play a governance or oversight role in a project. Although projects with the largest cost estimate change are highlighted and discussed, the emphasis in the Executive Project Dashboard and the Executive Portfolio Dashboard is placed on the overall health of the portfolio rather than focussing on individual projects. It is through the Branch forecasting exercise that executives of the Branch are informed of the projects that have a significant costing variance for their respective Branch so that they identify risks and mitigation strategies.



Review of ESDC's monthly Executive Project Dashboard for the period from April 2018 to March 31, 2019, did not identify any costing issues for the sampled projects.

FMA attestations when a project seeks approvals from a governance committee

When a project seeks governance approval of a gate or change request, the FMA is required to provide an attestation. Significant variances between the current cost estimate and the approved planned amount are to be explained in the FMA attestation. This document also displays the evolution and accuracy of cost estimates.

The audit expected to see evidence of increased cost monitoring when a project's risk level is elevated, such as more frequent review or additional steps undertaken to mitigate the heightened risk. For all seven projects, no evidence of increased monitoring was provided to the audit. Through discussions with CFOB management, we were informed that cost monitoring is higher for major projects, i.e., those projects of greater value and generally greater risk. Major projects are required to gate five times through gates 1 to 5. In comparison, minor and small projects are to gate three times at Gates 1, 3 and 5. Therefore, the stage-gate process itself requires more cost monitoring for projects of greater value and risk.

Stakeholders' engagement needed to be improved

The determination of cost estimates requires input and support from various stakeholders, either as sponsors or experts, such as those in Innovation Information and Technology Branch (IITB). Based on our review of sample projects and the review of lessons learned, we found evidence of stakeholders' engagement for most projects throughout the project's lifecycle. One project closure report indicated in lessons learned that an earlier stakeholders' engagement would be beneficial for project execution.

Lessons learned

ESDC's project management process requires lessons learned to be gathered at project closure. As part of the sampled projects reviewed by the audit team, we found that lessons learned were systematically gathered at the end of projects. Lessons learned typically included what went well and things to improve. However, we did not find evidence within the sampled projects nor from discussions with the FMAs and CFOB management, that these lessons learned were leveraged to improve costing practices. The lack of a systematic continual improvement process limits opportunities to improve the adequacy of the overall approach to costing and risks demotivating stakeholders.

2.3 CFO Attestation process for TB Submissions is adequate

FMAs sign-off on all project costing. Depending on the size and scope of the project, certain projects require funding approval through a TB Sub. For TB Subs and MCs, a CFO Attestation is required in addition to the FMAs' sign-off.

Three of our sampled projects required TB Subs. The projects reviewed indicated that a CFO Attestation was obtained for each of these three TB Subs and that all aspects of the due diligence required to support the CFO Attestation were performed and documented. CFO Attestation is key for TB Subs and MCs as it is a key accountability control that demonstrates the CFO approves the TB Sub and all related financial components. We found that the CFO attestation process was operating as required for TB Subs and MCs to support decision making.

2.4 A Project Costing Improvement Strategy has been implemented to improve costing practices

ESDC launched the Project Costing Improvement Strategy (PCIS) to establish and implement an action plan to improve the departmental costing capacity. Several actions have been implemented such as establishing an FMA costing community of practice, clarifying roles and responsibilities with respect to project financials, introducing an enhanced FMA attestation to support decision making, initiating financial kickoff sessions, and greater FMA engagement in committee discussions. Certain actions may help address some gaps noted in previous sections:

- The FMA attestation introduced the rating of project financials as a means to guide and document the FMA's due diligence review. This rating presents standardized criteria to assess the financials and promotes best practices. FMA attestations, along with costing tools, are stored in a central repository.
- The FMA attestation's rating of project financials reinforces the documentation of assumptions, data sources, rationales for costs and other supportive information in the Costing Tool.
- Stakeholder consultation was strengthened via financial kickoff sessions where the Sponsor Branch FMA gathers key players (PM, Project Management Advisor, IITB FMA and IITB representative) to ensure a common understanding of expectations for the development and validation of project financials. Also, the FMA attestation requires confirming that cost estimates from all branches were validated by the respective FMAs as well as, the co-signature of the attestation by the PM.
- Cost monitoring through the stage-gate process is supported by the FMA attestation, reinforcing the requirement to explain significant cost variances.
- The leveraging of lessons learned is built into the FMA attestation's rating of project financials. It prompts the FMA to document and explain criteria that could be improved. In addition, the FMA costing community of practice allows FMAs to share knowledge, including lessons learned. The PCIS continues to leverage lessons learned to improve costing practices, tools, data reliability and assumptions.

3. CONCLUSION

The audit concluded that ESDC's costing process and methodology were in compliance with the TB Guidelines on Costing for the audit period. We found that the costing methodology and the costing process were consistently applied across the Department, cost estimates were reliable, and CFO attestation process for TB Subs was adequate.

However, for the internal sign-off process for cost estimation which includes the FMA attestation, the audit concluded that the process to support the due diligence requirements could be enhanced through better documentation of assumptions and through the challenge function. Since the audit period, management has taken actions to address the lack of documentation in these areas, as part of the implementation of the PCIS. It should be noted that the audit did not test the effectiveness of PCIS' actions as they were outside of the audit scope.



4. STATEMENT OF ASSURANCE

In our professional judgment, sufficient and appropriate audit procedures were performed, and evidence gathered to support the accuracy of the conclusions reached and contained in this report. The conclusions were based on observations and analyses at the time of our audit. The conclusions are applicable only to the Audit of Costing Practices. The evidence was gathered in accordance with the *TB Policy on Internal Audit* and the *International Standards for the Professional Practice of Internal Auditing*.

APPENDIX A: AUDIT CRITERIA ASSESSMENT

Audit Criteria	Rating
Costing practices: It was expected that: <ul style="list-style-type: none">costing process and methodology are consistent with TB Guidelines on CostingCosting processes and procedures are documented, clear and communicatedcosting practices are consistently applied across the Department	<ul style="list-style-type: none">●●●
Cost estimates: It was expected that: <ul style="list-style-type: none">costing data and data sources are reliablestakeholders are consultedrobust challenge functions are establishedthe Department monitors the actual to forecasted costs variances to identify corrective actions required to improve the costing practices and toolslessons learned are leveraged to improve processes, tool, data reliability and assumptions	<ul style="list-style-type: none">●●●●●
CFO attestation: It was expected that the Department: <ul style="list-style-type: none">established an adequate process to support the requirements for CFO attestationestablished due diligence activities that are consistently applied across ESDC as part of the process to support the requirements for CFO attestation	<ul style="list-style-type: none">●●
<ul style="list-style-type: none">✱ Best practice● Sufficiently controlled; low-risk exposure● Controlled, but should be strengthened; medium-risk exposure○ Missing key controls; high-risk exposure	

APPENDIX B: GLOSSARY

CFO	Chief Financial Officer
CFOB	Chief Financial Officer Branch
ESDC	Employment and Social Development Canada
FMA	Financial Management Advisor
IITB	Innovation, Information and Technology Branch
MC	Memorandum to Cabinet
PCIS	Project Costing Improvement Strategy
PM	Project Manager
SFAC	Strategic Financial Analysis and Costing
SSC	Shared Services Canada
TB	Treasury Board
TB Sub	Treasury Board Submission