AUDIT REPORT

Audit of the Tri-agency Grants Management Solution (TGMS) Initiative – Phase I – Governance

Corporate Internal Audit Division Natural Sciences and Engineering Research Council December 9, 2021

NSERC
Audit of the Tri-agency Grants Management Solution (TGMS) Initiative – Phase I – Governance
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EXECUTIVE SUMMARY

Background

The Natural Sciences and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council (SSHRC) and the Canadian Institutes of Health Research (CIHR) are agencies of the Government of Canada and have similar programs, policies and processes in place to promote and fund research and research training in Canada.

NSERC, SSHRC and CIHR (the 'Agencies') have collaborated to establish the Triagency Grants Management Solution (TGMS) initiative, intended to deliver a new single, modernized grants management solution. At the time it was launched in 2018, the initiative was branded "Gateway" and subsequently re-branded as the TGMS initiative.

NSERC is the lead administering Agency for the TGMS initiative, and the NSERC president has overall accountability and authority for the TGMS initiative. The Memorandum of Understanding (MOU) between the Agencies sets out the administrative governance for the TGMS initiative, which defines the TGMS Board as the governance body accountable to the presidents of the Agencies through the TC3+ (a committee of the presidents of the Agencies and the Canada Foundation for Innovation (CFI)) for strategic decisions, and defines the vice-president, TGMS as the executive accountable for operational decision-making and overall management of the TGMS initiative. The current MOU is limited to the TGMS initiative's Discovery Phase.

The objective of the TGMS initiative is to achieve the following initial business outcomes:

- Improve user experience for the research community, and Agency staff;
- Improve effectiveness and collaboration;
- Increase ability to acquire high-quality data and report on research results;
 and
- Reduce risk of aging technologies, providing a strong foundation for the future.

The TGMS initiative included the following design principles initially established to guide decision-making:

• Take a client-centric view: engage the research community early and often;

- Be co-designed with internal and external stakeholders;
- Leverage industry partner knowledge;
- Product-based approach: delivering business capabilities iteratively; and
- Focus on advancing the delivery of the TGMS business outcomes.

These design principles and the TGMS initiative's business outcomes were revised as part of efforts to obtain project approval.

The TGMS initiative's Discovery Phase was established in order to obtain approval for the project. The Discovery Phase comprised two (2) steps to obtain approval; the first step will seek the necessary approval to develop an implementation plan and recommend a vendor for the solution software platform; the second step will seek approval to procure a software platform and configure a solution based on the implementation plan. The TGMS initiative will then transition into the Implementation Phase (also referred to as the Project Phase) to implement the detailed plan, configure the solution, on-board program funding opportunities and transition the solution into a steady state.

In March 2021, the presidents of the Agencies approved a revised total budget of \$13.6 million (FY2018-19 to 2022-23) for the Discovery Phase, with a planned completion of October 2022. The TGMS initiative has planned to transition the solution into a steady state in fiscal 2025-26.

Why It Is Important

The TGMS initiative is an ambitious, complex undertaking by the Agencies, and the establishment of effective, sustained governance is fundamental to the long-term success of the grants management solution.

This audit was included in the NSERC-SSHRC 2020-23 Risk-Based Audit Plan (RBAP) that was approved during the October 20, 2020 meeting of the Independent Audit Committee. The RBAP contemplated a real-time audit of the TGMS initiative in multiple phases, intended to provide timely feedback to senior management to support the successful implementation of a solution. This Phase I audit was focused on governance to coincide with the Discovery Phase of the TGMS initiative. It is envisioned that subsequent audit(s) will be informed by initiative risks and the timing of initiative activities, including but not limited to project management and procurement risks and controls.

Audit Objective and Scope

The objective of the audit was to provide assurance that the TGMS initiative was being appropriately managed (including governance, procurement oversight and risk management) to ensure its successful and timely implementation. The audit was conducted during the Discovery Phase. It was expected that the governance of the TGMS initiative would be established during the Discovery Phase, and as such, the audit was conducted during the course of the Discovery Phase in order to provide timely assurance.

The scope of the audit included the governance, oversight and risk management processes since the 2018 launch of the Gateway initiative, with a focus on the TGMS initiative since May 2020, including:

- The roles and responsibilities, changes and composition of the governance bodies of the TGMS initiative;
- The accountabilities and responsibilities of TGMS Board, TGMS management and key stakeholders;
- The solution procurement approach and project management approach of the TGMS initiative; and
- TGMS management processes and controls for decision-making.

The audit scope included consideration of work undertaken by the various governance bodies of the TGMS initiative, including the TGMS Board, subcommittees, management team, change agent networks, and external advisory committees, with input from a representative group of TGMS stakeholders.

Summary of Key Findings

The TGMS initiative was in the first step of the Discovery Phase, preparing to seek the necessary approval to develop an implementation plan and recommend a suitable vendor for a solution software platform. Initiative activities in this step of the Discovery Phase were limited to those activities necessary to seek initial approval such as options analysis, feasibility studies, socio-economic studies, technical investigations, market analysis, topographic surveys, and pricing and availability studies.

The audit found that the TGMS initiative's governance structure and management team was well defined given the complexities of the initiative.

The audit identified opportunities to ensure that:

- The governance of TGMS has the expertise necessary for the high level of risk and complexity of the initiative;
- Key stakeholder and dependent requirements are effectively incorporated into a solution over the life cycle of the initiative; and
- The methodology to define and manage changes to the final business outcomes and key performance indicators (KPIs) provides a decisive and optimal foundation for a solution.

Overall Conclusion

Effective governance at the outset of complex, long-term projects is critical to their ultimate success. The audit identified that the governance structure had challenges in effectively responding to the complex demands of the initiative. The audit identified weaknesses in the governance capacity to effectively respond to changing requirements and constraints in a highly complex project environment.

Effective governance ensures decisive, consistent and well-founded direction for the initiative, in a timely manner, with a process to measure progress. An adequate governance structure has the capacity to identify, assess and respond to changes and stakeholder demands, and continuously assesses the expertise that will ensure project success.

These audit findings represent an opportunity for the TGMS Board and TGMS executive management to reflect and consider improvements, in order to establish the capacity for effective governance during the critical Discovery Phase of the initiative.

1. BACKGROUND

The Natural Sciences and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council (SSHRC) and the Canadian Institutes of Health Research (CIHR) are agencies of the Government of Canada and have similar programs, policies and processes in place to promote and fund research and research training in Canada.

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The TGMS initiative was formally set-up with a distinct governance structure, assigned staff, resources and funding from the Agencies.

The objective of the TGMS initiative is to achieve the following initial business outcomes:

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 and
- Reduce risk of aging technologies, providing a strong foundation for the future.

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- Be co-designed with internal and external stakeholders;

- Leverage industry partner knowledge;
- Product-based approach: delivering business capabilities iteratively; and
- Focus on advancing the delivery of the TGMS business outcomes.

These design principles and the TGMS initiative's business outcomes were revised as part of efforts to obtain project approval.

The TGMS initiative's Discovery Phase was established in order to obtain the required project approval. The Discovery Phase comprised two (2) steps to obtain approval; the first step will seek the necessary approval to develop an implementation plan and recommend a vendor for the solution software platform; the second step will seek approval to procure a software platform and configure a solution based on the implementation plan. The TGMS initiative will then transition into the Implementation Phase (also referred to as the Project Phase) to implement the detailed plan, configure the solution, on-board program funding opportunities and transition the solution into a steady state.

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2. AUDIT OBJECTIVE AND SCOPE

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The scope of the audit included the governance, oversight and risk management processes since the 2018 launch of the Gateway initiative, with a focus on the TGMS initiative since May 2020, including:

- The roles and responsibilities, changes and composition of the governance bodies of the TGMS initiative;
- The accountabilities and responsibilities of TGMS Board, TGMS management and key stakeholders;

- The solution procurement approach and project management approach of the TGMS initiative; and
- TGMS management processes and controls for decision-making.

The audit conduct phase was completed during the first step of the Discovery Phase, prior to receiving approval to develop an implementation plan and recommending a suitable vendor for a solution software platform. Initiative activities in this step of the Discovery Phase were limited to those activities necessary to seek initial approval such as options analysis, feasibility studies, socio-economic studies, technical investigations, market analysis, topographic surveys, and pricing and availability studies.

The audit scope included consideration of work undertaken by the various governance bodies of the TGMS initiative, including the TGMS Board, subcommittees, management team, change agent networks, and external advisory committees, with input from a representative group of TGMS stakeholders.

3. AUDIT METHODOLOGY

The audit was conducted internally by the Corporate Internal Audit Division, reporting to the NSERC president. The Corporate Internal Audit Division of NSERC and SSHRC worked in collaboration with CIHR's Office of Audit and Evaluation. The audit team used the following methodology in the conduct of audit work.

- Review of TGMS initiative governance documentation and deliverables and analysis of relevant Agency and government policies.
- Interviews and questionnaires with current and former TGMS Board members, management and staff directly accountable and responsible for the TGMS initiative governance activities, and TGMS key stakeholders impacted by the grants management solution.
- Validation of source data used in governance reporting.
- Observation of TGMS initiative activities, such as the Internal Change Agent Network, Business Working Group and the proof-of-concept exercise.

This audit conformed with the Institute of Internal Auditors' *International Professional Practices Framework*, in accordance with the Government of Canada's *Policy on Internal Audit*, as supported by the results of the quality assurance and improvement program. These standards required that sufficient and appropriate audit procedures be conducted and that evidence be gathered to provide a high level of assurance on the findings contained in this report. The audit

Audit of the Tri-agency Grants Management Solution (TGMS) Initiative – Phase I – Governance conclusions were based on the audit findings against audit criteria included in Appendix I.

Peter Finnigan, Chief Audit Executive Corporate Internal Audit Division, NSERC and SSHRC

4. AUDIT FINDINGS

The Agencies collaborated to establish the TGMS initiative, having established the governance and management structures and administrative functions for the current Discovery Phase. The initiative represented a high degree of complexity in terms of a grants management solution, intended to address the diverse user needs of program funding opportunities, the research community and internal Agency stakeholders, and in terms of project management, intended to address the policy and procedural needs of internal Agency stakeholders, industry partners and central government agencies.

The TGMS initiative followed Government of Canada policies, directives and guides, the *Project Management Body of Knowledge* (PMBOK) and the *Control Objectives for Information and Related Technologies (*COBIT) 2019 framework, all of which highlighted the significance of adequate governance and representation of key stakeholders in ensuring the initiative's success.

Governance of projects at an appropriate, representative level of management was a key element of Government of Canada guidance and the *PMBOK*, both of which were being used in the management of the initiative.

The TGMS initiative encountered several significant events in 2020. In May 2020, in light of the COVID19 pandemic the presidents of the Agencies addressed the TGMS Board in a letter, identifying the need to re-evaluate the initiative's cost, plans and timelines to ensure a pragmatic updated solution would deliver the original objectives of the solution. This was followed by a change in the procurement approach (Summer 2020), clarification of the procurement approach (December 2020) and clarification that the project would be approved in two (2) sequential steps (December 2020), collectively referred to as the 'significant events from 2020'.

Draft artifacts for approval of the TGMS initiative were endorsed by the TGMS Board in May 2021. These draft artifacts were then submitted by TGMS for a subsequent substantive review to seek the first of two (2) approvals for the initiative, i.e., to develop an implementation plan and recommend a vendor for the solution software platform. A final decision on the first approval, based on a substantive review of the draft artifacts, was scheduled for the Fall 2021.

4.1 Governance Roles and Responsibilities

4.1.1 TGMS had an established framework for governing the initiative; there were challenges within the framework to effectively respond to the complex demands of the initiative.

TGMS Governance Structure

The audit expected to find that the TGMS initiative, as part of the Discovery Phase, had a clearly defined and complete framework for governing the initiative, effectively addressing the complex nature of the solution and project management needs. It was expected that the governance framework considered the accountabilities, project objectives and outcomes, scope, project approach, project plan, monitoring approach, and reporting controls for initiative activities. The audit considered whether the TGMS initiative used and followed policies, guidance and resources to support sound project governance, such as:

- An assessment of project management capacity
- A substantive assessment of the project complexity and risk
- Business case
- Executive dashboard
- Independent review program
- Outcome management strategy
- Project charter
- Project plan

The TGMS governance structure included the presidents of the Agencies, the TGMS Board (comprised of a defined set of executives from the Agencies), TGMS sub-committees, internal and external advisory committees and working groups. Each of these governance bodies had approved terms of reference that established their respective roles and responsibilities.

The TGMS initiative included a vice-president position as the executive lead, and an organizational structure lead by a director general to operationalize the project delivery with dedicated full-time management and staff. TGMS created Champion positions at a director level for each Agency and an additional Champion to represent corporate services, to facilitate change management and liaise across the Councils. The TGMS Board was consistently made aware of vacant positions within the TGMS team and the mitigation strategy.

Overall, the TGMS Board established a clearly defined governance structure for the oversight of the TGMS initiative.

TGMS Initiative Accountabilities and Approvals

It was expected that the TGMS Board would ensure that the Discovery Phase would clearly define the complex nature of the initiative, while ensuring there was sufficient capabilities and resources to effectively govern and manage, consistent with the complex nature of the initiative.

The TGMS management substantive assessment of the initiative's complexity and risk was endorsed by the TGMS Board, which indicated the project was relatively complex and high-risk, i.e., disciplined skills were required to successfully manage the TGMS initiative. Initially, TGMS management pursued a path that included a single project approval; it was ultimately deemed necessary for the TGMS initiative to follow a two (2) step approval process, based on its complexity and risk.

The TGMS Board assessed the TGMS initiative's project management capacity as being limited, i.e., the least capacity. The initial assessment was not well-documented nor was it revisited in subsequent years.

The TGMS Board established an organizational structure, with input from an external consultant, to operationalize the project delivery with dedicated full-time management and staff. The TGMS Board adjusted the initial organizational structure, consolidating two (2) director general positions into a single director general position. The TGMS Board then introduced TGMS sub-committees to address a perceived gap in the operational needs of the initiative, intended to allow the TGMS Board to focus on its strategic role. The TGMS Board used a Responsible, Accountable, Consultative and Informative (RACI) approach to establish clear reporting lines between TGMS management, TGMS committees and the TGMS Board.

The effectiveness of the TGMS Board was challenged by the complex nature of the project requirements, with limited project management capacity and experience delivering similar projects (i.e., limited capacity, augmented by the creation of the TGMS initiative team).

A gap in expertise may expose the initiative to unknown, unmitigated risks and shift the effort of the TGMS Board from providing strategic direction to an operational focus.

Oversight to Establish Scope

It was expected that the TGMS Board provided effective oversight to establish and manage the scope of the initiative, which would be a fundamental input into the

Discovery Phase deliverables necessary to obtain approval to develop an implementation plan and successfully identify a source of funding for the TGMS initiative.

Work on the scope of the initiative progressed at the direction of the TGMS Board, including, for example, developing a business capabilities model, client experience journey mapping, conceptual application architecture, outcome summary map, design principles and non-functional requirements. Initiative activities in this step of the Discovery Phase were limited to those activities necessary to seek initial approval (such as options analysis, feasibility studies, socio-economic studies, technical investigations, market analysis, topographic surveys, and pricing and availability studies); it was not clear whether any of the work undertaken by TGMS exceeded this limit, either before or after it was determined that an accelerated path could not be followed. It was not clear whether the impact of the events from 2020 or the impact from changes to the final business outcomes were reconsidered in this work.

It was evident that the initiative's scope/impact/needs/gap/risks were the subject of extensive discussions at the TGMS Board meetings. It was also evident that TGMS Board endorsed a final Work Breakdown Structure (WBS) and project schedule as a result of the significant events from 2020, which were also incorporated into the draft artifacts used to seek the first approval, i.e., to develop an implementation plan and recommend a vendor for the solution software platform; however, the TGMS Board did not request a strategic analysis of the risk and impact that the significant events from 2020 had on the initiative's scope.

The TGMS Board endorsed draft artifacts used to seek the first approval of the initiative, which included a scope definition (including areas that were in-scope and out-of-scope) for the TGMS initiative.

Overall, the TGMS Board established a process for developing and approving the scope of the initiative. It was difficult to determine whether the TGMS Board effectively assessed the impact of significant events on the initiative scope and continued feasibility.

The events of 2020 clarified some of the complex requirements of the initiative. The continued feasibility and the Agencies' ability to govern and deliver the initiative may have changed as a result of the events from 2020, which may adversely impact the ability to obtain approval to develop an implementation plan and successfully identify a source of funding for the TGMS initiative.

Oversight, Monitoring and Reporting of Policy Compliance

The audit expected to find that the TGMS Board established a framework to identify and monitor policy and procedural requirements for the initiative, especially related to the acquisition of IT. It was expected that the TGMS initiative would have an established framework for reporting on compliance with policies and procedural requirements.

The TGMS Board did not establish a process for reporting policy compliance on an ongoing basis. The TGMS governance structure included a separate division, with a director and staff, to operationalize the governance of TGMS, with responsibility for project approval. It was evident that TGMS management was knowledgeable about Government of Canada policies related to the initiative. The focus on compliance appeared to be a function of whether the policies were related to the approval process; compliance with policies that were not related to the approval process (e.g., information management, data management, privacy policies) did not appear to be a priority.

The TGMS Board considered seeking permission to follow an accelerated path that would allow work on key elements of a solution based on the Government of Canada policy suite. A formal TGMS initiative change request was approved in April 2021, clarifying that an accelerated path would not be followed and that the path to a solution would require two (2) sequential steps for approval; a first step will be required to seek the necessary approval to develop an implementation plan and recommend a vendor for the solution software platform; the second step will be required to seek approval to procure a software platform and configure a solution based on the implementation plan.

It was not evident that the TGMS Board's framework for monitoring policy compliance effectively identified or assessed whether the initiative's key work elements were limited to those required to obtain initial project approval, either before or after the change in the path to a solution.

The TGMS Board endorsed the draft business case (May 2021) that included detailed descriptions of the initiative's budget, scope and timeline and key performance indicators (KPIs) focused on developing strategies and methodologies intended to measure the success of the solution once it was implemented. It was not evident that the TGMS Board required KPIs in the draft business case or other deliverables related to monitoring the compliance of the TGMS initiative, as reflected in Government of Canada guidance, the *PMBOK* and the *COBIT 2019* framework.

It was evident that the scope/impact/needs/gap/risks were the subject of extensive discussions at the TGMS Board meetings, as a means of monitoring the initiative.

There was no indication that the TGMS Board had an overarching approach to identify policy suite reporting requirements and to report on compliance.

Overall, it was not clear that the TGMS Board established an effective approach for strategically monitoring the policy and procedural requirements of the initiative.

In the absence of an effective policy compliance framework, the initiative may encounter unexpected policy requirements or may be non-compliant. Work may have to be re-done or de-scoped, impacting TGMS' ability to deliver on its objectives and outcomes, resulting in a sub-optimal solution.

Oversight to Establish a Project Approach and Project Plan

The current Discovery Phase is intended to culminate in a recommended vendor for a solution software platform and an approved and funded implementation plan for the initiative, allowing the TGMS initiative to transition into developing a solution, including the procurement of a software platform, configuration of a solution, on-boarding of program funding opportunities, and subsequently transitioning the solution into a steady state. In order to achieve this objective, it was expected that the TGMS Board would ensure the Discovery Phase delivered a decisive, clear, complete, consistent and well-founded project approach and project plan, in a timely manner.

Prior to June 2020, the TGMS Board was working toward developing and implementing a life cycle, defined gated project approach, including an agile procurement of a solution. An investment in a program management office and transformation office (i.e., the TGMS team) were deemed necessary to address the lack of project management capacity and the lack of delegated authority to the Agencies to procure a solution.

Subsequent to the letter from the presidents of the Agencies to the TGMS Board (May 2020) requesting re-evaluated initiative costs, plans and timelines, followed by the change in the procurement approach (Summer 2020), the TGMS initiative did not appear to continue with a gated project approach or an agile procurement approach. It was not evident that the TGMS Board challenged the decision to abandon a gated approach or approved an alternate project approach; rather, the several versions of the draft WBS for the Discovery Phase appeared to be the primary driver for the project approach from June 2020 until it was approved by the TGMS Board in March 2021. It was evident that the TGMS Board was focused on the governance of the initiative through the end of the Discovery Phase, rather than a life cycle approach.

The TGMS Board became aware in early September 2020 that there was a risk that approval of the project may not be granted using a single step approach. Up

until March of 2021, the initiative followed an accelerated path that included approval in a single step, intended to obtain approval to both design a detailed plan and implement that plan, and was intended to obtain approval to both procure a software platform and configure a solution. Initiatives that require a single step for approval are typically low-dollar and low-risk initiatives. Initiatives that require more than one (1) step for approval are typically higher dollar and higher risk initiatives.

The TGMS Board continued to pursue a path that included a single step for approval while exploring alternatives to a path that included two (2) sequential steps for approval. The change in the path for the initiative was approved in April 2021 to include two (2) sequential steps. The path established in March 2021 included a first step intended to seek approval to design a detailed implementation plan and recommend a vendor for the solution software platform, and a second step intended to seek approval to implement the detailed plan and procure and configure a solution.

The TGMS Board did not request an analysis of the impact of the decision to explore options while continuing to pursue a path for approval in a single step, the impact of changing to a two (2) step approval process or any of the other significant events from 2020.

Overall, the TGMS Board did not appear to have a clear project approach for the Discovery Phase between June 2020 and May 2021.

It was not evident that the TGMS Board provided clear direction to management to reintroduce a gated, hybrid/waterfall approach for either the Discovery Phase or the Implementation Phase. The proposed use of a gated, hybrid agile/waterfall project approach for the Implementation Phase was implicit in the draft artifacts used to seek approval for the initiative; however, the detailed plans were preliminary. Notwithstanding the final WBS and project schedule approved in March 2021, an approved gated or agile project approach was not evident in any deliverables or in the minutes and record of decisions of the TGMS Board meetings subsequent to the April 2021 change request.

The final WBS and project schedule approved in March 2021 appeared to make continued use of a waterfall project approach, and the agile project approach/methodology used in the Discovery Phase was not well-documented or consistently understood by TGMS Board members and TGMS management.

It was not clear whether the TGMS Board provided explicit direction or explicit approval for TGMS management to use both a gated project approach and a hybrid agile/waterfall approach during the Implementation Phase. Further, it was not evident that the TGMS Board's decision to use both a gated project approach and a hybrid

agile/waterfall approach (which TGMS management had not defined) was supported with a needs analysis or the results of other work from the Discovery Phase. The gated project approach appeared to be proposed based solely on the requirements imposed by Government of Canada guidance.

It was not evident that TGMS Board effectively identified and evaluated the resource experience and skills required to deliver a gated project approach and a hybrid agile/waterfall approach.

It was not evident that the TGMS Board challenged:

- the decision for the TGMS initiative to not take a life cycle approach;
- inconsistencies between the approaches proposed by TGMS management and Government of Canada guidance on gating;
- whether the TGMS initiative activities were limited to those required to obtain initial project approval; and
- the inaccuracies and inconsistencies in the draft artifacts and other key deliverables, including the proposed project approach and the multiple changes to the definition of final business outcomes.

It was not evident that the TGMS Board made an affirmative and consistently understood decision about the project approach (for either the Discovery Phase of the Implementation Phase) subsequent to the change request in April of 2021 and leading up to the preparation of draft artifacts to seek the first approval for the initiative in May and June of 2021. A formal decision about the project approach was not evident in TGMS Board meeting minutes, rather, it appeared to be an implied decision as part of the TGMS Board approval of draft artifacts used to seek approval for the initiative, and included no supporting documentation.

The lack of a decisive, clear, complete, consistent, well-founded project approach and project plan will adversely affect the deliverables of the initiative. Work may be inefficient or ineffective at meeting objectives, or have to be re-done, impacting the initiative budget, scope and timeline. A decisive project approach and project plan will help ensure the initiative obtains approval to develop an implementation plan and successfully identify a source of funding for the TGMS initiative.

Overall conclusion – Governance Roles and Responsibilities

The TGMS Board established a framework for governing the initiative, including a governance structure, defined roles and responsibilities, and established oversight for the development of the initiative scope, stakeholder management, business outcomes, project approach and project plan.

There were several significant changes in the initiative's budget, scope, timeline, procurement path and approval path, and there were challenges for the TGMS Board to account for the complex impact that the changes had on the initiative.

The TGMS Board adopted an operational focus, as it worked to resolve the complexities of the procurement path and define the scope and approach of the initiative, while simultaneously establishing the governance structure of the initiative.

As the TGMS Board shifted to a strategic focus, there were continued challenges with establishing a decisive, clear, complete, consistent and well-founded project approach in a timely manner.

The TGMS Board did not adjust the approval timeline (Fall 2021) to compensate for the time required to resolve the complexities of the procurement path and define the scope and approach of the initiative. The TGMS Board did not assess the skills and experience required to effectively govern and deliver a complex, agile, gated project approach. The limited approval timeline may adversely impact the adequacy of deliverables necessary to obtain project approval, or may result in solution decisions (such as de-scoping) that result in a sub-optimal solution.

A gap between the organizational capacity to govern and manage the initiative and the complex needs and risks of the initiative may result in a sub-optimal solution.

There was a risk that the TGMS Board did not effectively challenge the proposed project approach and project plan, ensuring it was well-founded, with sufficient capacity to obtain approval and identify a source of funding to develop an implementation plan.

Recommendation #1

It is recommended that the vice-president, TGMS and the TGMS Board:

- Ensure governance mechanisms are designed to formally and periodically assess the feasibility of the proposed solution and alternatives.
- Ensure governance mechanisms are designed to formally and periodically assess the critical path of the initiative over its life cycle, including the timing of key dependencies.
- Assess and address any gaps in the capacity of the Agencies to govern and manage a complex, high-risk project, ensuring there is adequate expertise and experience to deliver an agile development approach.

• Establish a framework to ensure that policies that are relevant to the initiative are identified, accountability is clearly delegated and compliance is periodically assessed and reported.

Management Response and Action Plan

The vice-president, TGMS and the TGMS Board agree with the recommendations.

- TGMS will continue to periodically assess the feasibility of the proposed solution and alternatives. The TGMS procurement path includes a number of checkpoints to assess the feasibility of the proposed solution and alternatives (e.g., the Proof of Concept, Requirement Confirmation Request). [Ongoing]
- TGMS will review the newly updated Government of Canada guidance to assess whether the new guidance is better suited. In addition, TGMS will enhance the project schedule to incorporate the project gates and their reviews, including linkages to all appropriate project deliverables. [FY2021-22 (Q4)]
- TGMS will review governance practices and materials to find ways to better
 incorporate linkages to, as well as confirmation of compliance with, relevant
 Government of Canada policies. Furthermore, TGMS will review its
 governance practices to incorporate periodic in-depth reviews of the key
 components of the monthly Dashboard (e.g., timelines, cost, risks), as well
 as key governance artifacts (e.g., terms of reference, RACI, etc.). A final
 analysis and proposed action plan will be brought to the Board for approval.
 [FY2022-23 (Q2)]
- To assess the capacity to govern and manage the project, a second substantive assessment of the TGMS initiative's complexity and risk will be completed prior to the end of the Discovery Phase, which will be reviewed by the TGMS Board. Any gaps identified during this review will be addressed as part of the work to define the Project Operating Model. [FY2022-23 (Q3)]
- As part of the development of the TGMS governance plan for the Implementation phase, TGMS will consider and incorporate, as appropriate, the recommendations of the audit into the design of the governance structure, as well as its operational practices. [FY2022-23 (Q3)]

4.2 Stakeholder and Dependent Engagement

Change management was considered essential to the success of the TGMS initiative; the absence of adequate change management in previous solution initiatives was considered to be a contributing factor in the need for Gateway/TGMS. Change management was expected to be increasingly significant during the Project (next) Phase of the initiative. Change management, including management of stakeholders and dependents¹ was a key element of Government of Canada guidance and the *PMBOK*, both of which were being used in the management of the initiative.

4.2.1 TGMS established a framework for governing stakeholders that had been identified; it was less clear whether the stakeholder framework was designed to effectively identify stakeholders and dependents that were key, and designed to address key stakeholder requirements throughout the initiative life cycle.

Stakeholder Management Framework

The audit expected to find that the TGMS Board established a framework for effectively governing stakeholder and dependent requirements over the life cycle of the initiative.

The TGMS governance structure included a separate division to operationalize organizational change management, including a director and staff, with responsibility for stakeholder management.

The TGMS Board endorsed a formal change management strategy and methodology in January 2020; the scope included stakeholder management and was explicitly limited to the Discovery Phase. TGMS management indicated that the opportunity to adopt a life cycle approach to stakeholder management was somewhat constrained by Government of Canada policies, which limited stakeholder engagement activities in advance of project approval to develop an implementation plan. Work on a change management strategy for the Implementation Phase was initiated in May 2021.

The TGMS Board endorsed management's change readiness report. The scope of the report included extensive stakeholder consultations within the Agencies and the research community, and included recommendations related to the change management strategy in the Discovery and Implementation Phases of the TGMS

¹ For the purposes of this audit, 'dependents' are characterized as a sub-set within the initiative stakeholder group, generally defined as key decision-makers that rely on the outputs and outcomes of the solution and key decision-makers that the initiative relies on to provide inputs that will impact the initiative outcomes.

initiative. The report also included internal and external insights from stakeholder engagement, including consideration of the initiative life cycle (Discovery, Project, Transition phases and Ongoing Support).

It was not clear that focusing on the Discovery Phase would be effective for governing stakeholder and dependent requirements over the life cycle of the initiative. Further, it was not evident that the TGMS Board assessed the limitation placed on key work elements to those required to obtain initial project approval and the associated impact the limitation had on the initiative's stakeholder management framework.

A framework to govern stakeholders to the end of the Discovery Phase may not anticipate evolving stakeholder requirements from subsequent Phases of the initiative or successfully anticipate stakeholder requirements in the final solution.

Stakeholder Management Strategy

The audit expected to find that the TGMS Board established a strategy for governing stakeholders and dependents consistent with the complex nature of the initiative. It was expected that the TGMS Board's strategy included a methodology to identify stakeholder and dependent requirements and interests, assessed the impact of key decisions on stakeholders and dependents and ensured formal commitment by key stakeholders and key dependents to the primary objectives and outcomes of the initiative.

It was evident the TGMS Board was engaged in extensive discussions about stakeholder needs at all the TGMS Board meetings from March 2020 to May 2021, including in the final WBS and project schedule approved in March 2021, and in draft artifacts used to seek approval for the initiative.

The TGMS Board endorsed change management strategies that comprised important inputs into key project management deliverables and artifacts required for project approval. It was evident that stakeholder engagement was formally incorporated into the governance structure of the TGMS initiative.

The TGMS Board endorsed a strategy and methodologies related to the engagement with certain groups of stakeholders, primarily the research community and internal system users. It was evident that there was internal stakeholder engagement through the TGMS governance structure at all levels of management.

The TGMS Board endorsed management's change readiness report, which was to be used in developing the change management strategy for the Project (next) Phase. The TGMS Board endorsed management's report on the solution non-functional requirements, the result of consultations with stakeholders.

It was not evident that the TGMS Board challenged whether any of the concepts of a gated project approach or an agile project management approach had been incorporated into the change management or stakeholder management deliverables. The TGMS Board did not perform an analysis of the risk and impact that the significant events from 2020 had on stakeholders and dependents.

The TGMS Board's stakeholder strategy addressed the requirements of those stakeholders that were identified as being in-scope; it was less clear that there was an effective strategy to differentiate stakeholders and dependents, assess the impact of significant decisions and develop strategies to address their evolving life cycle requirements.

If TGMS does not effectively assess the impact of its significant decisions on stakeholders and dependents, the objectives and outcomes of the initiative may not continue to address the evolving stakeholder and dependent needs.

Representation of Stakeholder and Dependent Interests

The audit expected to find that the TGMS Board established a strategy to manage the specific requirements of key decision-makers within the stakeholder community and an approach to ensure firm commitment from those key decisionmakers.

The TGMS Board relied on the TGMS governance structure to provide adequate representation of the internal key stakeholder group, including executive stakeholder representation through the TGMS sub-committees. It was evident that the TGMS initiative actively engaged the internal and external stakeholder community to identify technical and business requirements. Internal stakeholders were also expected to self-identify their requirements and raise any concerns in a timely manner to the TGMS team through one of TGMS' respective governance bodies.

It was not evident that the stakeholder management framework defined or differentiated significant or 'key' decision-makers in the stakeholder community and did not differentiate 'dependents' from other stakeholders. The audit found, in a small sample size, that the interests of key executive stakeholders (who were not in the TGMS governance structure) were not effectively represented.

It was evident that the TGMS Board treated some stakeholders as key; however, it depended on the context of the discussion or deliverable. For example, there were instances where it was evident there was a need for approval by internal and central agency stakeholders before proceeding with the next activity in the project schedule; however, it was not evident that the identification, prioritization and

management of stakeholder requirements were the result of a rigorous, well-structured plan (critical path/ requirements list/ methodology).

It was not evident that the TGMS Board assessed whether the overall approach was effective at ensuring stakeholder and dependent representation and acceptance, and whether there was firm commitment from key decision-makers.

If TGMS does not effectively identify stakeholders and dependents that are key, and account for their interests, then evolving stakeholder and dependent requirements may not be incorporated throughout the development of a solution. This may impact adversely on the budget, scope and timeline of the initiative, if requirements have to be re-worked into the initiative, as the initiative seeks approval to develop an implementation plan and successfully identify a source of funding for the TGMS initiative.

Overall conclusion – Stakeholder and Dependent Engagement

The TGMS Board established a framework for governing stakeholders, including a governance structure, defined roles and responsibilities, and a strategy to manage stakeholders during the Discovery Phase, and moving into the Implementation Phase. The broad internal and external stakeholder consultations were a positive component of the initiative, and it was evident that the input from the stakeholder community was being used in the ongoing development of the initiative.

The Discovery Phase objectives included the need to make fundamental decisions about a solution, while the initiative was being constrained by Government of Canada policies to engage key decision-makers and dependents within the stakeholder community. It was unclear the TGMS Board had visibility into specific requirements of key decision-makers within the stakeholder community, or a firm commitment or road map to obtain commitment from those key decision-makers.

The TGMS Board did not establish a disciplined, consistent and timely approach to account for the impact that several significant changes had on specific key stakeholders and dependents.

There was a risk that the strategy to engage stakeholders did not effectively engage key decision-makers and dependents within the stakeholder community, whose input, commitment and approval will impact fundamental decisions about a solution. This risk was compounded further by constraints on developing a life cycle approach to strategically engaging stakeholders.

Recommendation #2

It is recommended that the vice-president, TGMS and the TGMS Board:

- Establish a methodology to identify stakeholder requirements, including specific key decision-makers and dependents within the stakeholder community, and a strategy to manage their requirements throughout the initiative life cycle;
- Define stakeholder and dependent acceptance criteria in consultation with key stakeholders; and
- Periodically assess and report on the risks and impact of significant events on stakeholder and dependent requirements, and the ongoing key stakeholder and dependent commitment to the initiative.

Management Response and Action Plan

The vice-president, TGMS Board partially agree with the recommendations.

- Through its Change Management Strategy, TGMS will continue to identify and manage stakeholder requirements, prioritizing key stakeholders throughout the project lifecycle. This will include the development of targeted communications and/or stakeholder engagement plans to be implemented at incremental periods throughout the lifecycle of the project. [Ongoing]
- TGMS will review its stakeholder engagement practices, and make any necessary adjustments to clarify the role and responsibilities of stakeholders (e.g., develop a stakeholder Responsible, Accountable, Supportive, Consultative and Informative (RASCI) approach). [FY2022-23 (Q1)]
- TGMS will define acceptance criteria for key deliverables of the Definition phase. [FY2022-23 (Q1)]
- Through the TGMS Risks and issues management process, risks and impacts will be identified and reviewed regularly. [FY2022-23 (Q1)]
- TGMS will review its governance practices and materials to more clearly inform the Board of the results of stakeholder engagements, as well as a more complete overview of which stakeholders participated in the development and review of deliverables. [FY2022-23 (Q1)]

4.3 Business Outcomes and Key Performance Indicators

It was expected that the governance of the initiative would ensure that the Discovery Phase would result in decisive, consistent and stable final business outcomes and KPIs, as a fundamental thread between the long-term strategic objectives of the solution and the ongoing operational work by the TGMS team. Identification and commitment to project objectives was a key element of Government of Canada guidance and the *PMBOK*, both of which were being used in the management of the initiative.

4.3.1 TGMS established a framework for governing the development of business outcomes and KPIs; there were challenges with resolving the complexities of the initiative necessary to ground the solution and effectively establish decisive final business outcomes and KPIs in a timely manner.

Roles and Responsibilities for Establishing the Business Outcomes and KPIs

The audit expected to find that the TGMS Board established clear roles and responsibilities for developing and approving business outcomes and KPIs.

The TGMS Board endorsed a RACI for managing the project scope and approach, and formal accountability and responsibility for business outcomes and KPIs.

The TGMS Board established sub-committees to provide input and technical advice to the TGMS Board, review risks, validate TGMS' proposed approaches and provide advice to the TGMS team on key deliverables. The sub-committees were chaired by the vice-president, TGMS with the director general, TGMS as a member.

The TGMS Board established roles and responsibilities for the development and approval of business outcomes and KPIs.

Clearly established roles and responsibilities provided a basis for development of business outcomes and KPIs for a solution.

Oversight to Establish Objectives and Outcomes

It was expected that the TGMS Board would provide effective oversight to establish objectives and outcomes for a solution that would be a fundamental input into the Discovery Phase deliverables, necessary to obtain approval to develop an implementation plan and successfully identify a source of funding for the TGMS initiative.

The TGMS Board appeared to use business outcomes from a 2018 feasibility study as the basis for the initiative that the TGMS Board relied on to provide a view of expected outcomes and to identify metrics for success, consistent with

Government of Canada guidance, the PMBOK and the COBIT 2019 framework. It was not evident that the feasibility study was reconsidered subsequent to the launch of Gateway in 2019 or the significant events of 2020. It was not evident that the TGMS Board had a clearly defined critical path toward a solution from June 2020 to March 2021. The presidents of the Agencies approved a change request in April 2021 for a \$2.5M (23%) budget increase and 13-month schedule extension (to October 2022) to complete the revised requirements of the Discovery Phase. The revised requirements were the result of clarification of the process to seek approval to develop an implementation plan and successfully identify a source of funding for the TGMS initiative. The change request established the critical path for the Discovery Phase; it was not evident that the critical path was defined for the life cycle of the initiative. TGMS activities from January to May 2021 appeared to be driven primarily by a short-term timeline related to obtaining approval to develop an implementation plan, while the WBS and project schedule were being finalized and approved in March 2021 to more clearly define a path toward a solution. Further, the TGMS Board deferred work on the business case (a fundamental artifact for project approval) that was started in the Spring 2020 until the first draft in May 2021.

The TGMS Board did not ensure that the team established key documents that would help ground the initiative objectives and outcomes in a timely manner.

A lack of clearly grounded objectives and outcomes make it difficult to keep the initiative on-budget, on-scope and on-time. Objectives and outcomes that change frequently or that do not have clear, strong executive management support have an adverse impact on stakeholders' commitment to the initiative and on the due diligence necessary to obtain approval to develop an implementation plan and successfully identify a source of funding for the TGMS initiative.

Oversight to Establish Business Outcomes and KPIs

The audit expected to find that the TGMS Board approved and monitored a strategy for developing business outcomes that would ground the direction of the initiative. It was expected that the TGMS Board approved and provided oversight for the development of KPIs to measure both the success of the solution once implemented and to monitor the ongoing performance of the TGMS initiative.

The development of business outcomes and KPIs for the solution was delegated to a division within the TGMS organizational structure that included a director and staff.

It was evident that the impact of the significant events from 2020 on the WBS and project schedule were the subject of extensive discussions at the TGMS Board

meetings between March and May 2021. It was also evident that the draft artifacts used to seek the first approval for initiative accounted for the significant events from 2020; however, the TGMS Board did not request an analysis of the risk and impact that the significant events from 2020 had on business outcomes and KPIs.

The TGMS team consulted extensively with Agency staff to define the business outcomes of the initiative, characterized as immediate, intermediate and final outcomes. TGMS team mapped business outcomes to ensure linkages with the business capabilities at a more descriptive level (Level 2), and mapped the business outcomes to the logic model for TGMS and the Departmental Results Framework for Agency reporting requirements.

The audit noted that the business outcomes from the 2018 feasibility study remained relatively consistent until October 2020. There were multiple changes to the final business outcomes between October 2020 and May 2021; final business outcomes in the 2019 Concept Case were different in each of the Proof-of-Concept Requirements, the Solution Recommendation Framework, the Streamlined Logic Model, the Change Readiness Report, the draft Business Case, other draft artifacts used to seek project approval and the draft Project Brief. While the TGMS Board endorsed each of these deliverables, it was not clear whether the TGMS Board was aware of the differences in the final business outcomes. It was not evident that the TGMS Board had an effective change management process for these multiple versions of the final business outcomes. It was not evident that the TGMS Board otherwise requested or considered the rationale for the multiple versions of the final business outcomes, or the impact on the initiative's scope, approach, deliverables and KPIs.

The TGMS Board endorsed a draft business case that included KPIs that were focused on developing strategies and methodologies intended to measure the performance of the solution once it was implemented. The draft artifacts used to seek the first approval for the initiative included detailed descriptions of the initiative's budget, scope and timeline; other KPIs related to measuring the progress of the TGMS initiative were not evident. The audit noted that the TGMS Board endorsed management's change readiness report that included a proposed approach to measuring the performance of stakeholder engagement during the Implementation Phase.

It was not clear that the TGMS Board provided effective oversight to decisively establish and manage changes to final business outcomes and KPIs across all deliverables and throughout the life cycle of the initiative.

Clearly defined KPIs provide a basis to measure the impact and success of the solution. KPIs are necessary to monitor and measure the progress and success of the initiative throughout its life cycle.

A lack of clear executive management commitment and frequent changes to the initiative's final outcomes may adversely impact stakeholders' commitment to the initiative and may adversely impact the due diligence necessary to obtain approval to develop an implementation plan and successfully identify a source of funding for the TGMS initiative.

Translation of Business Outcomes and KPIs into Scope, Approach and Deliverables

The audit expected to find that the TGMS Board provided effective oversight of the translation of business outcomes and KPIs into the initiative scope, approach and deliverables.

KPIs related to the management of the TGMS initiative were reported to the TGMS Board on a monthly basis, including information on change requests, financial summaries, issues and risks, and milestones.

In April 2021, the TGMS Board and the presidents of the Agencies approved a change to the budget, scope and timeline for the initiative in response to the clarification of the process for obtaining approval to develop an implementation plan and to identify a source of funding for the TGMS initiative. The decision was supported by an analysis of the risk related to the budget, scope and timeline; there was no specific consideration of initiative risks related to final business outcomes and other KPIs.

The draft artifacts used to seek the first approval for the initiative included a scope definition (including areas that were in-scope and out-of-scope), final business outcomes, project outcomes and KPIs for the TGMS solution once fully implemented.

It was not evident that the changes to final business outcomes and project outcomes between October 2020 and May 2021 were subject to a rigorous change management approach, and translated into initiative scope, approach and deliverables. While the TGMS Board endorsed key deliverables, it was not evident that the TGMS Board had a strategy related to changing final business outcomes and project outcomes. It was not clear whether the TGMS Board was aware of the multiple versions of the final business outcomes or effectively considered the risk and impact of changes.

The draft artifacts used to seek the first approval for the initiative differentiated between final business outcomes and project outcomes; however, the link between final business outcomes and project outcomes was not clear. It was not evident

that the TGMS Board provided clear direction on how the final business outcomes and the project outcomes were intended to used as drivers for the initiative.

It was unclear whether the TGMS Board provided effective oversight of the translation of final business outcomes and KPIs into the initiative scope, approach and deliverables.

A lack of clear executive management commitment or frequent changes to the initiative objectives and final outcomes may adversely impact the ability to obtain approval to develop an implementation plan and successfully identify a source of funding for the TGMS initiative.

Acceptance of the Business Outcomes and KPIs

The audit expected to find that the TGMS Board ensured that the team had established stakeholder acceptance criteria, defined in advance and subsequent to significant project changes.

It was not evident that the TGMS initiative had formal criteria for key stakeholders to accept the planned final business outcomes and KPIs, as reflected in Government of Canada guidance, the *PMBOK* and the *COBIT 2019* framework.

In April 2021, the presidents of the Agencies approved a change to the budget and timeline for the initiative in response to the clarification of the process for obtain approval to develop an implementation plan and to identify a source of funding for the TGMS initiative. The decision was supported by an analysis of the risk related to the budget, scope and timeline; there was no apparent change in scope of the initiative; otherwise, there was no specific consideration of the impact on stakeholders or dependents.

The TGMS Board endorsed the draft artifacts used to seek the first approval for the initiative that included final business outcomes, project outcomes and KPIs for the steady state of the solution. It was not clear whether the TGMS Board was aware that there were inconsistencies in the definition of final business outcomes and in the project outcomes within the draft artifacts used to seek project approval and between other key project deliverables.

It was unclear whether the TGMS Board effectively accounted for changes to final business outcomes.

Approval of the TGMS Initiative, Business Outcomes and KPIs

The audit expected to find that the TGMS Board had effective oversight to ensure that key stakeholders and dependents approved or were otherwise committed to changes to final business outcomes and KPIs.

It was not evident that the TGMS Board ensured that the team had developed criteria for key stakeholders to accept the planned final business outcomes and KPIs, as reflected in Government of Canada guidance, the *PMBOK* and the *COBIT* 2019 framework.

It was not evident that the TGMS Board had a plan to obtain formal approval, endorsement or commitment from stakeholders and dependents, either before or during the agile development of the solution.

It was not evident that the TGMS Board accounted for the timely approval, endorsement or commitment that would be required from stakeholders and dependents that would ensure business needs were met, as reflected in Government of Canada guidance, the *PMBOK* and the *COBIT 2019* framework for the governance and management of information and technology.

It was unclear whether the TGMS Board's stakeholder management strategy effectively ensured timely acceptance and commitment by key stakeholders and key dependents to key initiative decisions, final business outcomes and KPIs.

If TGMS does not have effective oversight to obtain formal approval, endorsement or commitment from key stakeholders and dependents, the initiative may reach key decision points where there are either delays in obtaining approval, or there is limited opportunity for course correction without significant re-work.

Overall conclusion – Business Outcomes and Key Performance Indicators

The TGMS Board established a framework for governing the development of business outcomes and KPIs, including defined roles and responsibilities.

The TGMS initiative tended not to have a consistent governance and project management discipline necessary to effectively establish decisive final business outcomes, project outcomes and KPIs in a timely manner. It was not evident that the multiple changes to final business outcomes were well-founded, and it was not evident that final business outcomes and project outcomes were subjected to a rigorous change management process.

It was not evident that the TGMS Board had effective commitment to the final business outcomes (and any of the interim changes to business outcomes), project outcomes and KPIs from specific key stakeholders and dependents, especially those stakeholders and dependents that were external to the TGMS governance structure. It was not clear whether the TGMS Board considered the impact of the multiple changes to the final business outcomes, project outcomes and KPIs on the initiative scope, approach and existing deliverables. The opportunity to engage stakeholders and assess the impact of changes may have been constrained by

the relatively short timeline to obtain approval to develop an implementation plan and identify a source of funding.

Changing and inconsistent final business outcomes are not conducive to an effective foundation for and the ongoing commitment to the initiative, upon which scope and approach and deliverables can be established.

The absence of KPIs to measure the ongoing performance of the initiative can make it difficult to effectively monitor the progress and success of the initiative over its life cycle.

There was a risk that key stakeholders and dependents are not clearly committed to the changes to final business outcomes and KPIs, which may impact the overall effectiveness of the solution.

Recommendation #3

It is recommended that the vice-president, TGMS and the TGMS Board:

- Ensure there is an effective strategy for establishing final business outcomes and significant project outcomes with clear direction on their intended use in project scope and deliverables;
- Ensure there is an effective change management process for significant business outcomes and significant project outcomes, including formal commitment from Agency executives and key stakeholders;
- Ensure that significant business outcomes and significant project outcomes are considered and incorporated into key initiative deliverables that ground the project;
- Establish KPIs to monitor the progress and success over the life cycle of the initiative; and
- Ensure stakeholder acceptance criteria includes consideration of business outcomes, including any subsequent changes.

Management Response and Action Plan

The vice-president, TGMS and the TGMS Board agree with the recommendation.

 TGMS will complete the required outcomes management, performance management and project management plans, as identified in the Work Breakdown Structure (WBS) during the Definition phase of the project. [FY2022-23 (Q3)]

- The Outcomes Management Plan will bring together all of the key outcomes deliverables under one umbrella, including the approach to monitoring and reporting. Prior to seeking Board approval, the plan will be socialized with both internal and external stakeholders, in accordance with TGMS' Change Management Strategy, which includes both stakeholder engagement and communications approaches. [FY2022-23 (Q2)]
- TGMS governance materials will be reviewed to better incorporate business outcomes within briefing materials for the Board as well as to ensure that project outcomes are considered when preparing key deliverables. A final analysis and proposed action plan will be brought to the Board for approval. [FY2022-23 (Q2)]
- TGMS will continue to comply with Government of Canada policies, which includes the development of KPIs to monitor the project throughout its lifecycle. [Ongoing]
- TGMS will continue to utilize its change control process for any significant changes to the project, including, but not limited to project timelines, budget, scope and outcomes. [Ongoing]

5. OVERALL CONCLUSION

Effective governance at the outset of complex, long-term projects is critical to their ultimate success. The audit identified that the governance structure had challenges in effectively responding to the complex demands of the initiative. The audit identified weaknesses in the governance capacity to effectively respond to changing requirements and constraints in a highly complex project environment.

Effective governance ensures decisive, consistent and well-founded direction for the initiative, in a timely manner, with a system to measure progress. An adequate governance structure has the capacity to at identify, assess and respond to change and stakeholder demands, and continuously assesses the expertise that will ensure project success.

These audit findings represent an opportunity for the TGMS Board and TGMS executive management to reflect and consider improvements, in order to establish the capacity for effective governance during the critical Discovery Phase of the initiative.

The Corporate Internal Audit Division would like to acknowledge and thank management and staff for their support throughout the conduct of this audit.

6. AUDIT TEAM

Peter Finnigan, Chief Audit Executive, NSERC-SSHRC Mohamed Ayachi, Internal Audit Principal, NSERC-SSHRC Dan Murphy, Senior Internal Auditor, NSERC-SSHRC Michael Bazant, Internal Auditor, CIHR Bernard Battistin, Senior Audit Consultant

APPENDIX I - AUDIT LINE OF ENQUIRY AND CRITERIA

The following areas of examination and the associated criteria were derived during the audit planning phase.

1. Governance

Criteria 1.1 Governance Roles and Responsibilities – The governance of the TGMS initiative provides an effective, strategic and independent challenge function for the project.

Criteria 1.2 Dependencies – TGMS governance ensures adequate representation for decisions that are dependent on key stakeholders and/or beyond the scope of the project.

Criteria 1.3 Business Outcomes and Key Performance Indicators – There is an effective process for acceptance of the TGMS initiative, business outcomes and key performance indicators.

Criteria 1.4 Stakeholder Engagement – TGMS governance includes an effective stakeholder management framework that considers critical stakeholder requirements throughout the project life cycle.

APPENDIX II - MANAGEMENT RESPONSE AND ACTION PLANS TO AUDIT RECOMMENDATIONS

General Comments

TGMS management and TGMS Board would like to recognize the efforts to gather and compile information for the Phase I Audit of TGMS. The TGMS management and TGMS Board appreciates the recommendations provided to support the governance roles and responsibilities, stakeholder and dependent engagement, and business outcomes and key performance indicators. We agree that following these recommendations will support our efforts to improve effectiveness and ensure the success of TGMS. The TGMS management and TGMS Board found the report and the findings at times to be unclear and lacking in context to fully understand the identified gaps and therefore how to address them. The TGMS management and TGMS Board accepts the report and would like to provide some additional context as part of the response to the recommendations.

Additional Context

Governance roles and responsibilities

The audit report questions whether any of the work on developing a business capabilities model, client experience journey mapping, conceptual application architecture, outcome summary map, design principles and non-functional requirements exceeded the initiative's delegated authority. All these activities were conducted as part of the initial work, limited to those required to obtain initial project approval and to ensure compliance with Government of Canada policies.

In December 2020, the TGMS Board endorsed the findings of the TGMS team that two sequential approvals would be required for the project. Nonetheless, during Winter 2021, the financial authority for the project (Vice-President, Common Administrative Services Directorate) requested that the TGMS team further explore options to pursue a path that included a single project approval. Ultimately, TGMS management confirmed once again that due to the Agencies' relative inexperience with project management, the lead Agency's project management capacity and the assessment of the TGMS initiative's relative complexity and high-risk, a path that included a single project approval was not an option for TGMS.

The TGMS Team has developed and implemented a significant stakeholder engagement strategy that is at the core of the project and important time/resources are already invested in this area. Therefore, the recommendation to identify stakeholder requirements are certainly important but the TGMS management and Board considers that the framework is already in place and delivering important benefits to the project.

Item	Recommendation	Management Response	Target Date
1	It is recommended that the vice- president, TGMS and the TGMS Board: • Ensure governance mechanisms	The vice-president, TGMS and the TGMS Board agree with the recommendations. • TGMS will continue to periodically assess the	• Ongoing
	are designed to formally and periodically assess the feasibility of the proposed solution and alternatives.	feasibility of the proposed solution and alternatives. The TGMS procurement path includes a number of checkpoints to assess the feasibility of the proposed solution and	Ongoing
	 Ensure governance mechanisms are designed to formally and 	alternatives (e.g., the Proof of Concept, Requirement Confirmation Request).	
	periodically assess the critical path of the initiative over its life cycle, including the timing of key dependencies.	TGMS will review the newly updated Government of Canada guidance to assess whether the new guidance is better suited. In addition, TGMS will enhance the project schedule to incorporate the	• FY2021- 22 (Q4)
	 Assess and address any gaps in the capacity of the Agencies to 	project gates and their reviews, including linkages to all appropriate project deliverables.	
	govern and manage a complex, high-risk project, ensuring there is adequate expertise and experience to deliver an agile development approach.	TGMS will review governance practices and materials to find ways to better incorporate linkages to, as well as confirmation of compliance with relevant Government of Canada policies. Furthermore, TGMS will review its governance	• FY2022- 23 (Q2)
	Establish a framework to ensure that policies that are relevant to the initiative are identified, accountability is clearly delegated	practices to incorporate periodic in-depth reviews of the key components of the monthly Dashboard (e.g., timelines, cost, risks), as well as key governance artifacts (e.g., terms of reference,	

	and compliance is periodically assessed and reported.	RACI, etc.). A final analysis and proposed action plan will be brought to the Board for approval.	
		 To assess the capacity to govern and manage the project, a second substantive assessment of the TGMS initiative's complexity and risk will be completed prior to the end of the Discovery, which will be reviewed by the TGMS Board. Any gaps identified during this review will be addressed as part of the work to define the Project Operating Model. 	• FY2022- 23 (Q3)
		 As part of the development of the TGMS governance plan for the Implementation phase, TGMS will consider and incorporate, as appropriate, the recommendations of the audit into the design of the governance structure, as well as its operational practices. 	• FY2022- 23 (Q3)
2	It is recommended that the vice- president, TGMS and the TGMS Board:	The vice-president, TGMS and the TGMS Board partially agree with the recommendations.	
	Establish a methodology to identify stakeholder requirements, including specific key decision-makers and dependents within the stakeholder community, and a strategy to manage their requirements throughout the initiative life cycle;	 Through its Change Management Strategy, TGMS will continue to identify and manage stakeholder requirements, prioritizing key stakeholders throughout the project lifecycle. This will include the development of targeted communications and/or stakeholder engagement plans to be implemented at incremental periods throughout the lifecycle of the project. 	Ongoing

	 Define stakeholder and dependent acceptance criteria in consultation with key stakeholders; and Periodically assess and report on the risks and impact of significant events on stakeholder and dependent requirements, and the ongoing key stakeholder and dependent commitment to the initiative. 	 TGMS will review its stakeholder engagement practices, and make any necessary adjustments to clarify the role and responsibilities of stakeholders (e.g., develop a stakeholder Responsible, Accountable, Supportive, Consultative and Informative (RASCI) approach). TGMS will define acceptance criteria for key deliverables of the Definition phase. Through the TGMS Risks and issues management process, risks and impacts will be identified and reviewed regularly. TGMS will review its governance practices and materials to more clearly inform the Board of the results of stakeholder engagements, as well as a more complete overview of which stakeholders participated in the development and review of deliverables. 	• FY2022- 23 (Q1) • FY2022- 23 (Q1) • FY2022- 23 (Q1) • FY2022- 23 (Q1)
3	It is recommended that the vice-president, TGMS and the TGMS Board: • Ensure there is an effective strategy for establishing final business outcomes and significant project outcomes with clear direction on their intended use in project scope and deliverables;	The vice-president, TGMS and the TGMS Board agree with the recommendation. • TGMS will complete the required outcomes management, performance management and project management plans, as identified in the Work Breakdown Structure (WBS) during the Definition phase of the project.	• FY2022- 23 (Q3)

- Ensure there is an effective change management process for significant business outcomes and significant project outcomes, including formal commitment from Agency executives and key stakeholders;
- Ensure that significant business outcomes and significant project outcomes are considered and incorporated into key initiative deliverables that ground the project;
- Establish KPIs to monitor the progress and success over the life cycle of the initiative; and
- Ensure stakeholder acceptance criteria includes consideration of business outcomes, including any subsequent changes.

- The Outcomes Management Plan will bring together all of the key outcomes deliverables under one umbrella, including the approach to monitoring and reporting. Prior to seeking Board approval, the plan will be socialized with both internal and external stakeholders, in accordance with TGMS' Change Management Strategy, which includes both stakeholder engagement and communications approaches.
- TGMS governance materials will be reviewed to better incorporate business outcomes within briefing materials for the Board as well as to ensure that project outcomes are considered when preparing key deliverables. A final analysis and proposed action plan will be brought to the Board for approval.
- TGMS will continue to comply with Government of Canada policies, which includes the development of KPIs to monitor the project throughout its lifecycle.
- TGMS will continue to utilize its change control process for any significant changes to the project, including, but not limited to project timelines, budget, scope and outcomes.

• FY2022-23 (Q2)

• FY2022-23 (Q2)

- Ongoing
- Ongoing