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Follow-up of Requirements for the Management of Large- scale Projects and Programs

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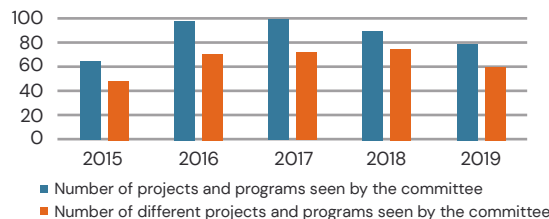
Auditor General of the Ville de Montréal

Follow-up of Requirements for the Management of Large-scale Projects and Programs

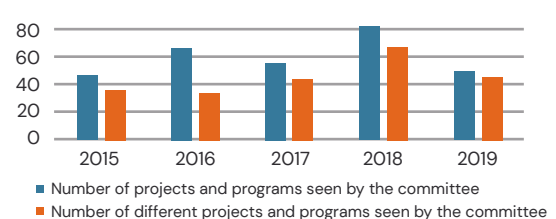
Background

In 2010, the City created a Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux (hereinafter the "Cadre de gouvernance")¹ to guide the management of large-scale projects (hereinafter the "Projects") and programs (hereinafter the "Programs")² that, annually, require tens, if not hundreds, of millions of dollars in investment to be completed. The Cadre de gouvernance defines the identification criteria and establishes a process for approval by governance committees to authorize the transition of the project to the next phase of its life cycle. In 2014, to support the decision-making process, a "Dossier d'approbation de projet (DAP)" was implemented to better present all the information required for decision-making. The Bureau des projets et programmes d'immobilisations (BPPI) is mainly responsible for making this Cadre de gouvernance known and ensuring that the business units responsible for the completion of the Projects and Programs comply with it.

Number of files (projects and programs) seen by the Comité corporatif de gestion des projets et programmes d'envergure (CCGPE)



Number of files (projects and programs) seen by the Comité de coordination des projets et programmes d'envergure (CCPE)



Purpose of the Audit

The purpose of our audit was to ensure that the City's Projects and Programs follow the Cadre de gouvernance and requirements for obtaining the various authorizations from the governance committees to move forward through their life cycle.

Results

Since implementation of the Cadre de gouvernance, the identification criteria for Projects and Programs have evolved and are disseminated on the BPPI Intranet. However, these do not match those in the Cadre de gouvernance, and nothing specifies which prevail. As well, the criteria in place do not allow for identification of some Programs until they have reached the completion phase. Since they were not identified in a timely manner, these Programs did not appear before the governance committees from the start of their life cycle. Although the project management approach appears to be structured, the BPPI does not seek to assure itself of this entirely. As well, it does not exercise any systematic control over the comprehensiveness of the documents produced by the business units before they are presented to the governance committees. Finally, reporting on the monitoring of Projects and Programs is not done on a regular basis to the governance committees, nor any progress report on Projects (content, budgets and timelines) based on the initial parameters.

¹ The Cadre de gouvernance was updated in 2020, following the period covered by the audit and was not the subject of this mandate.

² Based on the criteria established in the 2010 Cadre de gouvernance, the Projects include major urban development projects, municipal asset management projects that represent an estimated value of \$10M or more in investments or that are complex or high-risk, as well as any other project identified by the administration. For their part, municipal asset management programs cover the areas of water, roads, living environments, buildings, computer services, including telecommunications, and public safety.

Main Findings

Identification of new Projects and Programs

- The BPPI publishes criteria for identifying Projects and Programs on its Intranet site that differ from those in the Cadre de gouvernance but does not formalize them or specify which ones are in effect.
- The annual identification process for new Projects and Programs does not allow for the identification of all new Programs at the start of their life cycle or ensure that they go before the governance committees.

Follow-up of Requirements in the Cadre de gouvernance and Administrative Framework for the Dossiers d'approbation de projet

- The BPPI does not seek to ensure that all Projects and Programs comply with all the requirements of its Cadre de gouvernance and administrative framework for the DAP, in particular that all of the documents are produced for the various points of transit.
- The BPPI does not systematically monitor the comprehensiveness of the documents produced by the business units before they are presented to the governance committees.

Guides, Tools and Training

- The information presented in the municipal commitments section of the DAP, i.e., sustainable development, active design and mobility, social accessibility and the smart City concept, vary from one Project to another because of a lack of precise markers of what is expected of the persons responsible in the fields of expertise.

Accountability

- The lack of precise instructions on how to fill in the quarterly tracking table has resulted in a lack of uniformity in the information presented on Projects and Programs.
- The information presented in the reports does not allow for the progress status of the Projects to be evaluated (content, budgets and timelines) based on the initial parameters.
- The information obtained during the reporting is not presented regularly to the governance committees for the purposes of discussing possible issues related to the various Projects and Programs.
- Annual follow-up on the progress of Programs at the governance committees is not done by all business units.

In addition to these results, we have formulated various recommendations to the business units that are presented in the following pages. These business units were given the opportunity to agree to the recommendations.

List of Acronyms

AMP	Approbation des modifications de projet
BPPI	Bureau des projets et programmes d'immobilisations
CCGPE	Comité corporatif de gestion des projets et programmes d'envergure
CCPE	Comité de coordination des projets et programmes d'envergure
DAP	Dossier d'approbation de projet
EC	executive committee
TCWP	Three-year capital works program



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1. Background

Each year, the Ville de Montréal (hereinafter the “City”) manages a number of Projects and Programs whose complexity, risks and investments vary significantly. Some examples are the redevelopment of Rue St-Hubert (\$50M), the renovation, expansion and construction program of libraries³ (\$550M), and the replacement program of the secondary water and sewer system (\$2.1B over 10 years).

Given the extent of the investments, since April 2010, the City has had a Cadre de gouvernance des projets et des programmes de gestion d’actifs municipaux (the “Cadre de gouvernance”) to ensure that the Projects and Programs are completed using industry best management practices. This Cadre de gouvernance applies to the entire City (departments, boroughs, non-profit organizations and paramunicipal agencies).

According to the Cadre de gouvernance, large-scale projects (hereinafter the “Projects”) are defined either as major urban development Projects, municipal asset management Projects with an estimated value for the City of \$10M or more in investments, complex or high-risk Projects, or any other Project identified by the administration. Large-scale programs (hereinafter the “Programs”) are not defined by the Cadre de gouvernance using any specific criteria.

The Cadre de gouvernance establishes a process for approval by the governance committees at the various transition points of the life cycle of a Project or Program, along with the operating rules, which are as follows:

- 1. Preparing a business file at the transition points:** The business units responsible must prepare or update a business file for the presentations that they will have to make to the governance committees during the transition points.
- 2. Cost estimates:** The business units must make a preliminary cost-benefit estimate of the Project or Program.
- 3. Financial aspects:** All Projects and Programs must be supported by three-year capital programs⁴ and operating budgets. The Service des finances is responsible for overseeing the financial process of each Project and Program.

³ One Program makes it possible to complete several Projects.

⁴ In 2021, the City replaced its *Three-year capital works program* (TCWP) with a *Ten-year capital works program*.

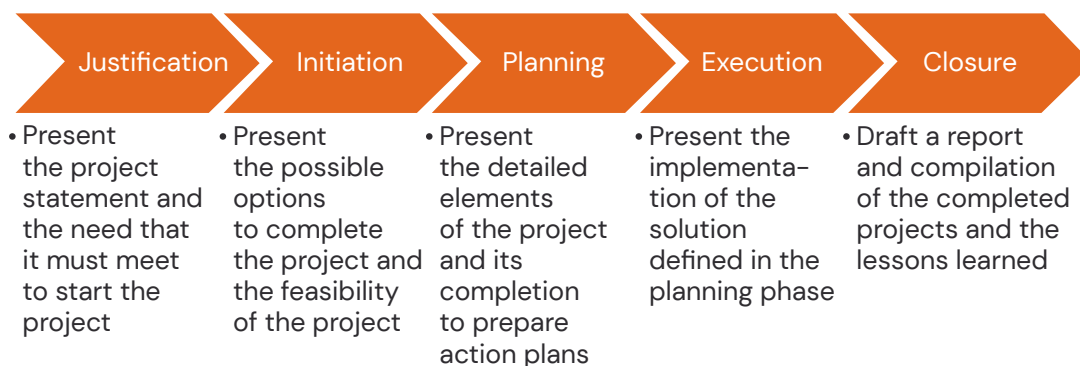
4. **Consultation, public affairs and communication aspects:** The project or program manager must promote a climate of social acceptability and ensure the Projects and Programs reflect the City’s brand image and overall communication strategy.
5. **Procurement strategies and rules:** The guiding principle is to ensure that the City obtains the best conditions and best quality-price ratio.
6. **Contract fulfillment and management:** Strict management of internal mandates, external contracts and various changes during the work is maintained for each completion phase of Projects and Programs.
7. **Management system audits:** The internal auditor conducts a selective biennial audit on the project management systems, methods and procedures.

Projects and Programs are completed in five phases, as shown in Figure 1, and between each of these phases, there is an appearance before the following governance committees (see Appendix 5.3.):

- The Comité corporatif de gestion des projets et programmes d’envergure (CCGPE), whose primary role is to recommend to the Comité de coordination des projets et programmes d’envergure (CCPE) the transition of Projects and Programs to the next phase;
- The CCPE, whose primary roles are to authorize the transition to the start-up and planning phases and to recommend to the executive committee (EC) their transition to the execution phase;
- The role of the EC is to authorize the transition of the Projects and Programs to the execution phase.

FIGURE 1

Completion Phases of a Project or Program at the City



Source: Figure produced by the BVGM based on information collected from the BPPI.

The Cadre de gouvernance falls under the Direction générale, which is responsible for its development, implementation, tracking and updating. The Direction générale has tasked the Bureau des projets et programmes d'immobilisations (BPPI) with the mission⁵ to oversee the implementation, application and dissemination of the Cadre de gouvernance. In that capacity, the BPPI ensures implementation of a project management culture at the City and the use of project management best practices.

The BPPI's responsibilities consist of registering the Projects and Programs for a passage point before the governance committees, forwarding the supporting documentation to them, sitting on the governance committees and drafting the minutes of these meetings. It also develops and provides reference tools (guides, templates) and training to the business units to guide them along the journey of their project with the City's various governance committees.

On a quarterly basis, it also consolidates in the tracking table of priority Projects and Programs the indicators received from the Project and Program managers on achieving the objectives in terms of the budget parameters, timeline and scope of the Project. A summary table containing changes to the various parameters is then sent to the governance committees for information and discussion. The fact remains, however, that the selection, management and completion of the Projects and Programs do not fall under the BPPI but rather under the business units described as applicants in the Cadre de gouvernance.

Until 2014, application of the Cadre de gouvernance was directed towards Projects and did not take Programs into consideration. Since the end of 2014, however, the City has made the completion of the Projects and Programs listed in the Three-year capital works program (TCWP) a priority and integrated recurring asset management programs into the follow-up process by the governance committees. Because more Projects and Programs were having to be tracked, the criteria for identifying them were reviewed to avoid overburdening the governance committees. Thus, the budget criterion for a Project or Program was increased from \$10M to \$50M.

Since that time, the criteria defining Projects and Programs have evolved over the years (see Table 1).

 ⁵ Intranet BPPI, May 2020.

TABLE 1

Evolution of the Identification Criteria

<p>2010 Cadre de gouvernance</p>	<p>Projects include:</p> <ul style="list-style-type: none"> • Major urban development projects; • Municipal asset management projects: <ul style="list-style-type: none"> – with an estimated value of \$10M or more in investments; – complex; – high-risk; • All other projects identified by the administration. <p>Programs in the areas of:</p> <ul style="list-style-type: none"> • water; • roads; • living environments; • buildings; • computer services, including telecommunications; • public safety.
<p>BPPI – Presentation of the approval and coordination process for projects and programs before the governance committees (Comité de direction interservices des projets et programmes (CDIPP) October 2016)</p>	<ul style="list-style-type: none"> • Priority projects of the municipal administration; • With a global budget of \$50M or more; • A transition point in the current year; • An investment of \$10M or more in a completion year; • Followed up in previous years.

**BPPI –
Presentation
of new projects
and programs
to be followed up
in 2020 (CCGPE
in November 2019)**

- Projects and Programs with an end date and a global budget of \$50M or more;
- Recurring Programs with a projected \$50M or more in the next 10 years;
- Projects and Programs with expenditures of \$10M or more in one TCWP year of completion;
- Projects and Programs followed up in previous years to their closure;
- All Projects and Programs specifically identified by elected officials and the administration.

**Intranet of
the Ville de
Montréal, Projets
et Programmes
d’immobilisations
section⁶**

- Projects and Programs:
- with a global budget of \$50M or more;
 - complex and high-risk;
 - involving many stakeholders;
 - specifically identified by elected officials and the administration;
 - projects that include an architecture or design competition.

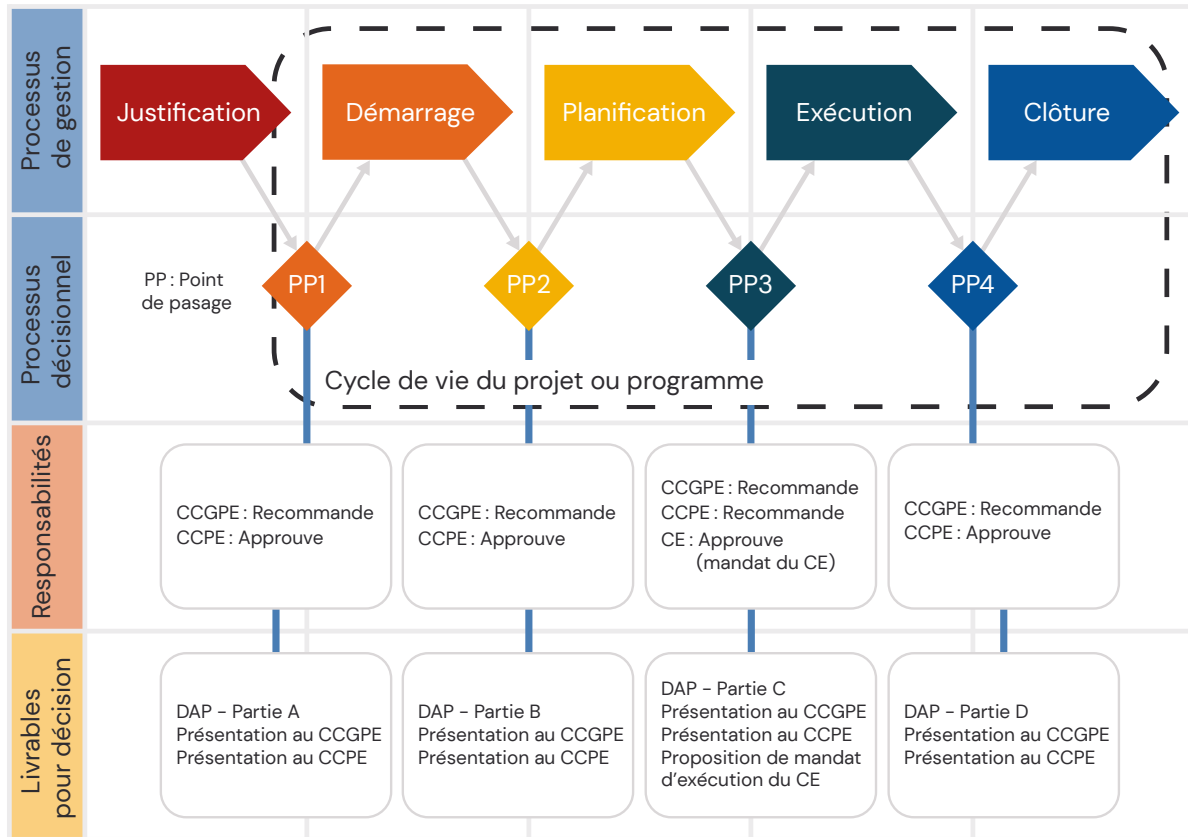
In April 2015, to ensure that all the information required for decision-making was brought forward during the appearance (see Figure 2) of the Projects and Programs before the governance committees (transition points), the Direction générale, under an administrative framework,⁷ replaced the project charter with the “Dossier d’approbation de projet (DAP),” which structures and brings together all the main aspects of a Project or Program.

⁶ In effect May 2020.

⁷ Administrative framework C-OG-DG-P-15-001.

FIGURE 2

Decision-Making Process Based on the Phases of the Life Cycle of a Large-Scale Project or Program



Source: BPPI (2015).

Appearing before a governance committee is required in the following situations:

- To obtain a transition point from one phase to another, by presenting a DAP/Program;
- To obtain approval for changes involving the content, timeline or budget, through a request for the Approbation des modifications de projet (AMP);
- At the request of the Direction générale, for the presentation of a status report for a Project or Program or to obtain a decision, authorization or direction from decision makers.

As of October 31, 2019, the BPPI was following 269 Projects and Programs (including subprojects and programs) (see Table 2). Of this number, almost half (48%) were in the execution phase, and 52% of these had an investment budget greater than \$50M. However, these percentages cannot be determined for all the Projects and Programs in the preliminary phases of completion, since the budgets have not yet been defined for these.

TABLE 2

**Projects and Programs at October 31, 2019
(Including Subprojects and Programs)**

Business units	Total
Bureau des projets et programmes d'immobilisations	3
Commission des services électriques	1
Concertation des arrondissements	2
Direction générale	1
Diversité et inclusion sociale	1
Service de la culture	28
Service de l'eau	34
Service de l'environnement	15
Espace pour la vie	5
Service de la gestion et planification immobilière	33
Service des grands parcs, du Mont-Royal et des sports	30
Service de l'habitation	1
Service des infrastructures du réseau routier	13
Service du matériel roulant et des ateliers	1
Service de l'urbanisme et de la mobilité	86
Société du parc Jean-Drapeau	5
Service des technologies de l'information	10
Total	269

Given the number of Projects and Programs in effect and the extent of the investments required to complete them and given that the City has a dedicated team to ensure that the project management process is followed for their completion, we consider that there is reason to look at the operations of the BPPI and how it ensures that the Cadre de gouvernance is applied and followed.

2. Purpose and Scope of the Audit

Under the provisions of the *Cities and Towns Act* (CTA), we completed a performance audit mission on the “Follow-up of requirements for the management of large-scale Projects and Programs”. We performed this mission in accordance with the *Canadian Standard on Assurance Engagement* (CSAE) 3001, described in the *CPA Canada Handbook – Certification*.

The purpose of this audit was to ensure that the City’s Projects and Programs comply with the *Cadre de gouvernance des projets et des programmes de gestion d’actifs municipaux* and the requirements to obtain various authorizations from the governance committees to move forward through their life cycle.

The role of the Auditor General of the Ville de Montréal is to provide a conclusion regarding the objectives of the audit. To do so, we collected a sufficient amount of relevant evidence on which to base our conclusion and to obtain a reasonable level of assurance. Our assessment is based on criteria we have deemed valid for the purposes of this audit. They are presented in Appendix 5.1.

The Auditor General of the Ville de Montréal applies *Canadian Standard on Quality Control* (CSQC) 1 from the *CPA Canada Handbook – Certification* and, accordingly, maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. In addition, it complies with the independence and other ethical requirements of the *Code of ethics of chartered professional accountants*, which are founded on fundamental principles of integrity, professional competence and due diligence, confidentiality and professional conduct.

Our audit work focused on the period from April 20, 2015, to March 2, 2020, but for some aspects, earlier and later data were also taken into consideration. It was mainly completed between March 2020 and January 2021.⁸ We also took into consideration information that was sent to us up to March 2021.

This audit was conducted primarily within the BPPI, a unit tasked by the Direction Générale, which reports to the Direction générale adjointe aux services institutionnels.

Upon completing our audit, we submitted a draft audit report to the manager of the audited business unit and to the Direction générale for discussion purposes. The final report was then sent to obtain an action plan and timeline for implementing the recommendations concerning them, as well as to the Acting deputy director general at the Services institutionnels.

⁸ During our audit, but after the period covered by our work, the *Cadre de gouvernance* was updated and adopted by the executive committee, then city council and, finally, the urban agglomeration council in October 2020. No audit was performed on the updated Framework. For the purposes of this report, the findings regarding the requirements contained in the 2010 Framework (whose basic principles are taken up again in the updated Framework) and the recommendations take into consideration the impact of the changes made to the Framework.

3. Audit Results

3.1. Mechanism for Identifying new Large-Scale Projects and Programs

3.1.1. Definition of the Criteria for Identifying Large-Scale Projects and Programs

For a Project to be subject to the requirements of the Cadre de gouvernance, it must, at a minimum, meet one of the criteria defined in the Framework, whereas a Program must be in a specific field as mentioned in Table 1. Upon consulting the BPPI Intranet site during our audit, however, we noticed that the identification criteria did not entirely match those presented in the Cadre de gouvernance. This can lead to confusion among the business units depending on whether they rely on the Cadre de gouvernance or on the Intranet site.

We therefore wanted to know what the official identification criteria were to ensure that all Projects and Programs were identified. In addition to the criteria defined in the Cadre de gouvernance and those found on the Intranet site, we found other information sources that reported identification criteria that differed slightly (see Table 1). In November 2019, the BPPI, in a presentation to the CCGPE during an annual inventory of Projects and Programs conducted by the BPPI, further clarified the criteria compared with what appeared on the Intranet. Asked why there were different criteria, the BPPI explained that, while municipal programs are part of the Cadre de gouvernance, they had not really been seen by the governance committees prior to 2014, the year in which the change of administration prioritized carrying out Projects in the TCWP, which included recurring asset management Programs that represented a major portion of the TCWP. As a result, the list of Projects and Programs increased, and the criteria were reviewed to avoid overwhelming the governance committees. According to the BPPI, the identification criteria have been reviewed approximately once a year since that time, and are always formalized on the BPPI's Intranet site, which renders obsolete the criteria appearing in the 2010 Cadre de gouvernance in effect at the time of our audit. As part of its annual identification of new Projects and Programs to be followed up, the BPPI uses much more precise criteria than the official ones presented on the Intranet site (see Table 1). Our audit also showed that these official criteria are not subject to approval by elected officials when they are changed, although the Cadre de gouvernance was adopted by the executive committee, city council and the urban agglomeration council. In addition, at no time on the BPPI's Intranet site or in the Cadre de gouvernance that was still in effect on the same site during our audit was mention made that the criteria appearing in this document were no longer in effect and that one had to refer to those on the Intranet site.

Consequently, depending on the criteria consulted, it can be difficult for one of the City's business units to know whether the Projects and Programs that they are responsible for are subject to the requirements of the Cadre de gouvernance or not.

3.1.1.A. Recommendation

We recommend that the Bureau des projets et programmes d'immobilisations ensure that all changes to the identification criteria for large-scale Projects and Programs are adopted by the municipal authorities and officially communicated to avoid any risk of confusion by the business units and to ensure that the requirements of the Cadre de gouvernance are followed for all large-scale Projects and Programs that are subject to them.

3.1.2. Identifying new Large-Scale Projects and Programs

According to the BPPI, the City's business units are responsible for identifying new Projects or Programs and registering them to appear before the governance committees (transition points). The BPPI is responsible for monitoring the application of the Cadre de gouvernance. To this end, it conducts an annual inventory of all new Projects and Programs to ensure that they are presented before the City's governance committees. The inventory consists of discussions with the business units and elected officials via the Comité de direction interservices des Projets et Programmes (CDIPP⁹) and the CCPE, and the review of the TCWP.

When a new Project or Program is identified by the BPPI, it is added to its tracking table. We set out to verify whether the inventory conducted at the end of 2019 contained all the new Projects and Programs. Based on our audit, we found that, in general, the BPPI adequately identified the Projects and Programs, although the process is not documented. We noticed, however, that some Programs—with end dates or recurring—were identified as being large-scale and should have followed the Cadre de gouvernance since they meet the budgetary criteria defined in Table 1, but in fact these Programs were not new and were even in the execution phase. Asked about this, the BPPI explained that, for a given year, a Program can have a budget below \$50M and thus not be considered large-scale and not be seen by the governance committees. But the following year, if its budget exceeds \$50M, it then becomes a large-scale Program without having had to pass the transition point preceding the execution phase. In our opinion and that of the BPPI, the issue is to identify Programs as soon as possible before they are entered in the TCWP to ensure that the various committees can monitor their progress in compliance with the requirements of the Cadre de gouvernance.

While a process for the BPPI to identify new Projects and Programs exists, it fails to capture all the Programs in a timely manner so that they appear before the governance committees based on their life cycle.

3.1.2.A. Recommendation

We recommend that the Direction générale require the business units to ensure that all programs likely to meet the scale criteria follow the decision-making process before any funding is authorized.

⁹ This committee promotes the best possible integration of municipal expertise in the completion of inter-departmental projects and programs and optimizes the completion of the TCWP. However, this is not a decision-making committee on the progress of a project or program.

3.2. Follow-up of the Requirements of the Cadre de gouvernance and the Administrative Framework for the Dossiers d'approbation de projet

Implementation of the Cadre de gouvernance and the administrative framework is based mainly on approval of Projects and Programs by the governance committees at the transition points in the phases of the life cycle and on the DAP tool. While the new framework no longer mentions operating rules, there is reason to question applying the 2010 Cadre de gouvernance regulations and maintaining them in a potentially improved framework to ensure the sound management of the City's large-scale Projects and Programs.

The approval process rests on the creation of a DAP, which presents relevant information for informed decision-making by the CCPE or EC, depending on the specific phase of the life cycle (see Figure 2).

In addition to a DAP, the business units responsible for a Project or Program must also comply with the requirements to:

- Produce cost-benefit estimates of the Project or Program with the help of other business units, if necessary, and have the estimates reviewed independently by the area office¹⁰ involved;
- Support their Project or Program with operating budgets or three-year capital expenditures plans and comply with the financial process under the direction of the Service des finances;
- Ensure that their Project or Program fosters a social acceptability climate and reflects the City's brand image and communication strategy;
- Comply with the procurement strategies and rules, ensuring that the City obtains the best conditions and best quality-price ratio;
- Ensure strict management of contracts throughout the Project and Program completion phases.

In addition, the Cadre de gouvernance provided for a selective biennial audit of the project management systems, methods and procedures conducted by the internal auditor.

¹⁰ This is a project management office within a business unit that is responsible for designing, harmonizing, disseminating and supporting the project and program management systems and procedure. It should be noted that not all the City's business units have an area office.

Based on the approval process, for a Project or Program to be seen by a governance committee, the project manager must:

- Enter the Project through the BPPI on the targeted committee's agenda on the desired date (CCGPE/CCPE);
- Send the presentation documents to the BPPI five working days prior to the committee meeting so that the BPPI can forward them to the committee members to familiarize themselves with them;
- Present the Project or Program to the committee on the agreed date and receive comments and recommendations from the committee.

To appear before the EC, the BPPI asks that the file be entered on the agenda of an EC session. As with the appearance before the CCGPE or CCPE, five working days before the date of the EC session, the project manager must send the PowerPoint presentation to the BPPI, along with the Mandat d'exécution to be obtained from the EC. The BPPI validates the compliance¹¹ of the mandate proposal and transmits it to the Division du soutien aux instances within the required timeline. The day of the meeting, the project manager presents the Project or Program in closed session to obtain a Mandat d'exécution.

As part of our audit, we sought assurance that the Projects and Programs complied with these requirements of the Cadre de gouvernance and DAP framework. More specifically, we wanted to verify that the Project and Program managers had produced all the documents required at the transition points between the various phases and obtained the required authorizations from the governance committees, and that the operating rules had been applied.

We selected¹² 29 Projects and Programs appearing on the tracking table of priority Projects and Programs of October 21, 2019, and for each one, we consulted the documentation presented at the various appearances before the governance committees (in particular, the Dossiers d'approbation de projet (DAP) /presentations and AMP requests), as well as the minutes of these meetings.

¹¹ Compliance is limited to validating that the information on the scope, budget and timeline contained in the Proposition du mandat d'exécution reflects the discussions and recommendations of the CCGPE and CCPE.

¹² Appendix 5.2. presents the composition of our sample chosen on a discretionary basis in terms of the number of Projects/Programs according to the five phases of the life cycle. The sample size is adequate to obtain sufficient evidence to support our conclusions.

Upon examination of the files of the Projects and Programs in our sample, we observed that:

- In 28% of Projects and Programs (eight files), the decision-making process before the governance committees was not entirely followed:
 - In four files, authorizations to transition to the execution phase or approvals for changes to the projects currently being executed were granted by the CCPE rather than the EC;
 - In four files, there was no appearance before the EC after changes were made to the scope, budgets or timelines of the Project or Program.
- In 45% of Projects and Programs (13 files), some DAP or AMP documents required during the transition points were not produced or all the documentation of the Project or Program was missing. For example:
 - The project manager produced only the PPT presentations and not the DAPs (more complete Word document). The BPPI told us that to avoid delaying the project, this situation was tolerated if the presentation complied with the template in effect;
 - Changes to the budget and timeline were made to Projects and Programs without an AMP request being produced;
 - The DAPs and PPT presentations were not produced, or the BPPI had no trace of them even though it must receive them before presentation to the governance committee;
 - In addition, almost 60% of the missing files concerned recurring programs for the maintenance of assets. As mentioned previously, it is possible that these Programs became “large-scale” once their annual budget exceeded the BPPI’s budget criterion, in which case they automatically fell into the execution phase and earlier approvals did not take place. These situations were not specified in the decision-making process of governance.

- In 31% (nine files), validation by the BPPI of the information presented by the applicant at the committees was insufficient. For example:
 - Changes to the presentations requested by the committees were not made in subsequent presentations or had to be requested again at the next committee meeting;
 - The BPPI took action during presentations to the governance committees, asking that additions and specifications be made to the information produced so that it complied with the required practices, including revising the budget based on the amounts in the TCWP, or pointing out that the templates used were not those in effect at the time of the presentation, elements that could have been monitored by the BPPI before the presentation;
 - Members of the CCPGE have asked to make changes to the risk analysis presented within the framework of a Project or to present all the scenarios studied;
 - Upon reading the DAP, we also found that, occasionally:
 - › Either the section on risks and mitigation plans was not documented, or the level of detail was not adapted to the scale of the Project/Program or the description did not correspond to the definition of a risk;
 - › The level of detail of the information presented in the specialized sections containing the municipal commitments varied with the Projects/Programs.

Nevertheless, although the findings listed above did not compromise approvals at various transition points, we believe that the time allocated for receipt of documents to be presented to the various committees could be an issue, limiting the time the BPPI devotes to validating the information presented and changes to it, as needed.

Given the frequency (bi-monthly) and limited duration of the meetings of the governance committees, we believe that presenting complete and accurate information would optimize the time spent on the various files and could result in the governance committees seeing a greater number of files yearly. As mentioned further on in our report, the governance committees lack the time to see all the Projects and Programs each year.

Regarding applying other requirements of the Cadre de gouvernance that are instead completed via project management by the business units, our discussions with the BPPI and consultation of the documents we received enabled us to conclude that the BPPI does not seek to obtain evidence that these requirements are applied, in particular that the financial process under the purview of the Service des finances is followed.

In addition, during our audit, we did not obtain any evidence that the internal audits of the project management systems were conducted in compliance with one of the operating regulations contained in the Cadre de gouvernance adopted in 2010.

Based on these findings, while the BPPI's approach to project management seems structured, the BPPI does not seek to ensure that the requirements of the Cadre de gouvernance and the administrative framework for Projects and Programs are fully fulfilled. As well, the BPPI does not systematically monitor the comprehensiveness of the documents produced by the business units prior to their presentation to the governance committees.

The above findings highlight several shortcomings in controlling the implementation of the operating regulations in the Cadre de gouvernance. While the new Cadre de gouvernance no longer explicitly refers to such rules, we consider that these are standard management rules, and that completion of the City's large-scale Projects and Programs should refer to them.

3.2.A. Recommendation

We recommend that the Bureau des projets et programmes d'immobilisations establish a mechanism to ensure that the Cadre de gouvernance is implemented by the business units based on sound management rules.

3.2.B. Recommendation

We recommend that the Bureau des projets et programmes d'immobilisations verify that the documents provided by the business units are complete prior to their presentation to the governance committees, to control compliance with the requirements of the decision-making process for managing Projects and Programs.

3.2.C. Recommendation

We recommend that the Direction générale implement an internal control mechanism to periodically evaluate the efficacy of the Cadre de gouvernance to ensure that it achieves its objectives.

3.3. Guides, Tools and Training

Guides and Tools

As part of our audit, we set out to evaluate whether the documents produced by the BPPI and made available to the Project and Program managers were sufficient, up-to-date and easily accessible, to enable them to perform their duties and present files that comply with the Cadre de gouvernance and administrative framework.

We note that the BPPI has a set of guides and tools to steer and support Project and Program management through the various appearances before the City's governance committees (transition points).

In particular, the BPPI has created a set of distinct templates (DAP/AMP/PPT presentation) to support each of the transition points of a Project or Program, making it possible to structure the information required for decision-making by the governance committees. Explanations are provided directly within most of the templates to facilitate drafting the information.

Supporting these templates are comprehensive methodology guides designed to equip the Project or Program managers with tools on topics specific to project management, including risk management and cost estimates and preparing capital expenditure Project and Program budgets.

However, in reading the Dossiers d'approbation de projet (DAP) at the planning and execution phases as part of our analysis of the 29 Projects and Programs in our sample, we found that the level of detail of the information presented in the sections that made up "the municipal commitments" (i.e., sustainable development, active design and mobility, social accessibility, and the smart City concept) varied from one Project or Program to another. To meet DAP requirements regarding these municipal commitments, the BPPI recommends that project managers call on administrative units with specialized expertise in these fields. This represents a major difference in the BPPI's support of project managers for whom it produced guides regarding risk management and the Project or Program budget.

Without precise markers of what is expected from these areas of expertise, it is normal to find discrepancies in the information presented. In addition, it can be burdensome, in terms of coaching and support, for the persons in charge of the various fields of expertise to be called upon regularly for the same type of information.

Training

In addition to the guides and tools put at the disposal of the project managers, we found that the BPPI regularly holds training sessions for all City employees. According to the information obtained, the BPPI held 27 training sessions in 2019 and early 2020, which were attended by almost 275 employees. Based on our audit, we concluded that the training given was specific and practical, and focused mainly on introducing the Cadre de gouvernance, the approval process including the DAP, and the methodology guides. These are also supported by detailed training material that participants can refer to in the future.

3.3.A. Recommendation

We recommend that the Bureau des projets et programmes d'immobilisations have the specialized business units produce guides detailing expectations related to the information required for elements concerning municipal commitments and make them available to the business units so that the latter can adequately document the Dossiers d'approbation de projet related to these elements.

3.4. Accountability

3.4.1. Compilation of the Information in the Tracking Table

The BPPI is responsible for consolidating Project and Program reporting. On a quarterly basis, it asks the business units to update a tracking table based on specific parameters, depending on whether it is a Project or a Program. For each parameter, one value and one colour code (green, yellow or red) must be assigned based on whether there is no risk, a possible risk or certainty that the scope, budget or timeline of the Project or Program will not be met. The business units may also add a general comment about a Project or Program in the designated column for clarification.

For the 29 Projects and Programs in our sample, we wanted to know whether the business units properly identified changes in these indicators during the reporting. While the business units generally indicated by colour code when they expected that there would be a delay in the timeline to complete a Project or Program, we observed that they were less thorough in identifying a risk to the budget. In the case of two Projects, changes to the budget values were not indicated with a different colour code. For example, for one Project, the budget went from \$21.96M to \$23.75M (\$1.79M), and for the other, it went from \$183M to \$218M (\$35M) in a three-month period without any change made to the risk status of the budget between the two reports.

In other situations, the return to a green indicator was done too quickly. For example:

- In the case of one Project in the execution phase, the budget was in yellow at \$93M on May 27, 2016, and rose to \$173M on September 9, 2016, but returned to green. Between the two reporting dates, the Project appeared before the CCPE (June 14, 2016), which recommended its continuation without an AMP being authorized by the EC. Since there was no official authorization for this change, it should have remained yellow.
- In the case of another Project, the red indicator for the budget on November 24, 2017, became green on February 15, 2018, although the budget increase was only approved by the EC a year later, on February 7, 2019.

The BPPI stated that it does not correct the colour code that the business units put in their reports since it considers that it is their responsibility to provide the appropriate information. Nevertheless, the BPPI can ask a business unit for clarification regarding the comments that appear in the reporting document or on the values entered in this document. The BPPI also confirmed that it cannot validate the amounts entered in the budget in the reporting document versus what is in the TCWP since it is only for three years and there is no trace of amounts authorized in the past. Also, some TCWPs might be associated with several Investi numbers (TCWP project numbers).

While the BPPI does not change the colour codes, there is a cell for each parameter in the tracking table that it can highlight (in orange) to indicate that it does not agree with the evaluation made by the business unit. Since the BPPI does not perform any checks, there is no guarantee that the information transmitted to the CCGPE and the CCPE is accurate and up to date.

The BPPI adopted a high-level approach to reporting with the business units that favours a few global indicators for a Project or Program. However, this reporting method does not make it possible to quickly know the trend line of a Project or Program in relation to evolving expenses without consulting other information sources. Indeed, the BPPI does not ask for the expenses incurred to date but only for the total planned budget and the Project or Program manager's degree of confidence that this total budget will be respected. The CCGPE and the CCPE cannot know whether a Project has sufficiently progressed in relation to the real expenses incurred to date without additional research.

3.4.1.A. Recommendation

We recommend that the Bureau des projets et programmes d'immobilisations develop a guide specifying the markers for the business units to follow to standardize quarterly reporting.

3.4.1.B. Recommendation

We recommend that the Bureau des projets et programmes d'immobilisations review the reporting required of the business units to include the progress status of large-scale projects (content, budgets and timelines) based on the initial parameters, to provide a more comprehensive view of a business unit's ability to deliver the large-scale project within the authorized markers or to identify the issues proactively.

3.4.2. Reporting to the Governance Committees

Once the tracking table is updated, the BPPI prepares a summary table containing only those Projects and Programs for which it considers that a change has been made in one of the parameters since the last report. This must be done five days before the CCGPE meeting and tabled on the committee's site.

We found during our audit that, in the schedules of the CCGPE meetings for 2015 and 2016, mention is made at regular intervals of an information item, "Tracking table of priority Projects and Programs." Starting in 2017, this item no longer appears on the agenda. We found evidence that this item was discussed at the CCGPE meetings of April 14, 2015, and July 7, 2015. However, the minutes of the CCGPE meeting of October 13, 2015, do not mention it in spite of it being on the agenda; this is also the case for the November 26, 2015, meeting. In the minutes of the CCGPE meeting of September 16, 2016, although the item was to have been presented, the minutes state that "this topic was not dealt with due to a lack of time." The same reason is given at the meeting of December 6, 2016, which was the next time this item was on the agenda. During the next meeting, on December 16, 2016, the item was not raised again. Similar scenarios were observed in 2017, 2018 and 2019. Other than in 2015 and 2016, we did not find any evidence that such presentations were made to the CCGPE. The follow-up document was simply tabled on the committee's site.

According to the BPPI, the idea raised that the CCGPE did not have time to discuss the follow-up of Projects and Programs in the wake of a report can be explained by the number of Projects and Programs this committee tracks during a limited number of meetings per year (two per month) (see Table 3). Although from 2015 to 2016, the number of Projects seen by the CCGPE rose from 53 to 72, it stayed at 72 in 2017, dropping to 67 in 2018, and finally to only 47 in 2019. It is worth noting, however, that if a Project needed to come more than once before the CCGPE in the same year, it only counted as one Project seen by the committee.

TABLE 3**Number of Projects and Programs Examined by the Governance Committees**

Year	CCGPE		CCPE	
	Projects	Programs	Projects	Programs
2015	53	12	36	11
2016	72	26	26	40
2017	72	28	47	9
2018	67	22	64	17
2019	47	32	30	19

The BPPI also states that the departments must present the progress of all the Programs for which they are responsible once a year. Based on the schedules of CCGPE and CCPE meetings and information items (and not transition points), we observed a reduction in the number of presentations over the years, except for 2016 (see Table 4).

TABLE 4**Presentation to the Committees by a Business Unit of the Programs under its Responsibility**

Business unit	2015		2016		2017		2018		2019	
	CCGPE	CCPE	CCGPE	CCPE	CCGPE	CCPE	CCGPE	CCPE	CCGPE	CCPE
Service des infrastructures, de la voirie et des transports ¹³	X	X	X	X	X	X	X	X		
Service des grands parcs, du Mont-Royal et des sports	X	X	X	X	X		X		X	
Service de l'eau			X	X	X		X			
Service de la gestion et planification immobilière			X	X	X					

¹³ The SIVT – Service des infrastructures, de la voirie et des transports underwent an organizational change in 2018, and its activities are divided between the Service des infrastructures du réseau routier and the Service de l'urbanisme et de la mobilité, but neither of these departments has reported on the progress of their Programs since then.

While stating that it asks the business units to report on the progress of the Programs annually, the BPPI does not systematically put the follow-up of these Programs on its agenda. We can conclude, therefore, that the BPPI has not required that the departments present the yearly progress of all their Programs. The sheer number of Projects and Programs to be followed up by the governance committees makes it impossible for the BPPI to formally present a follow-up of Projects and Programs once the business units have reported on them. The fact that the CCGPE can follow up a Project more than once a year takes up space in the completion schedule, further limiting the ability of the BPPI to present the follow-up of the Projects to the CCGPE and possibly to the CCPE. In addition, the elected officials and members of senior management do not have access to a specific question period to inquire about the progress of Projects and Programs. We therefore deem it necessary for the BPPI to review the method of reporting (type and frequency) to the governance committees.

3.4.2.A. Recommendation

We recommend that the Bureau des projets et programmes d'immobilisations periodically present to the Comité corporatif de gestion des projets et programmes d'envergure and the Comité de coordination des projets et programmes d'envergure the information obtained during the business units' reporting to keep elected officials and members of senior management informed about possible issues with the various large-scale Projects and Programs.

3.4.2.B. Recommendation

We recommend that the Bureau des projets et programmes d'immobilisations put on the meeting agenda of the Comité corporatif de gestion des projets et programmes d'envergure and of the Comité de coordination des projets et programmes d'envergure a regular presentation for each business unit responsible for large-scale programs so that senior management has a comprehensive picture of the progress of these large-scale programs.

4. Conclusion

In 2010, the Ville de Montréal (the City) approved a Cadre de gouvernance to regulate the management of Projects and Programs, which requires, on an annual basis, tens, or even hundreds of millions of dollars of investment for their completion. The Bureau des projets et programmes d'immobilisations (BPPI) is tasked by the Direction générale with making the Cadre de gouvernance known, updating it and ensuring that the business units responsible for completing the Projects and Programs follow this Cadre de gouvernance.

Our audit led us to conclude that, despite the existence of this Cadre de gouvernance and the BPPI's responsibility to ensure that it is followed by the business units, the Projects and Programs do not all comply with it. While the BPPI develops the identification criteria for the Projects and Programs, their communication on the BPPI's Intranet site does not match what is in the Cadre de gouvernance. We also observed that, although there is a process to identify new Projects and Programs, it does not allow the BPPI to capture all the Programs in a timely manner so that they appear before the governance committees. As well, while the role of the BPPI is to ensure the business units comply with the Cadre de gouvernance and the Project approval process, it does not monitor the documents submitted by the requesting business units prior to presentation to one of the governance committees. This results in committee members requesting changes to or clarification of information that should have been in a Dossier d'approbation de projet (DAP), as required by the Cadre de gouvernance or the administrative framework for a DAP.

Because of the number of current Projects and Programs, governance committees do not have time to view all of them every year. The need to have Projects and Programs reappear before a governance committee because they lack precision or do not comply with a requirement of the Cadre de gouvernance or administrative framework for a DAP is therefore far from optimal and limits the number of files the governance committees can review annually.

The BPPI has developed guides and training to help business units meet the requirements of the Cadre de gouvernance. Based on our observations, there is a need to prepare a similar guide for all the analyses that must be done by the business units as part of the DAP, especially regarding the social acceptability of the Project, sustainable development and the component related to the smart city. This would help standardize the nature and level of detail included in the documentation provided by the business units.

Finally, our audit led us to conclude that the reporting process required of the business units needs to be better defined so that the BPPI can have an overall view of the progress of the Projects and Programs, including actual expenses incurred and not only whether the total budget is expected to be insufficient. Considering that governance committees are decision-making bodies for the approval of Projects and Programs, we believe that a regular and full reporting should be made by the BPPI on the progress of all the Projects and Programs.

Based on these findings and to ensure the sound management of the public funds needed to complete the City's Projects and Programs, we recommend that the City:

- Ensure that all changes to the identification criteria for large-scale Projects and Programs are adopted by the municipal authorities and officially communicated to the business units;
- Require the business units to ensure that all programs likely to meet the scale criteria follow the decision-making process prior to any funding authorization;
- Establish a mechanism that ensures that the Cadre de gouvernance is implemented by the business units based on sound management rules;
- Verify that the documents provided by the business units are complete prior to their presentation to the governance committees to control compliance with the requirements of the decision-making process for managing Projects and Programs;
- Implement an internal control mechanism to periodically evaluate the efficacy of the Cadre de gouvernance to ensure that it achieves its objectives;
- Put on the meeting agenda of the Comité corporatif de gestion des projets et programmes d'envergure (CCGPE) and the Comité de coordination des projets et programmes d'envergure (CCPE) a regular presentation on the progress of the Programs under the responsibility of the various business units;
- Periodically present to the CCGPE and the CCPE the information obtained during the reporting;
- Review the reporting required of the business units to include the progress status of large-scale projects (content, budgets and timelines) based on the initial parameters;
- Develop a guide specifying the markers for the business units to follow to standardize the quarterly reporting;
- Have the specialized business units produce guides detailing expectations related to information required for elements concerning municipal commitments and make them available to the business units.

5. Appendices

5.1. Objective and Evaluation Criteria

Objective

To ensure that the City's Projects and Programs comply with the Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux and the requirements to obtain the various authorizations from the governance committees to move forward through their life cycle.

Evaluation Criteria

- Mechanisms are in place so that the BPPI can identify any new Project or Program and follow up on it.
- Control mechanisms are in place so that Projects comply with the requirements of the Cadre de gouvernance des projets et des programmes de gestion d'actifs municipaux to obtain authorizations from the governance committees.
- The BPPI has tools to guide the business units in implementing and complying with the Cadre de gouvernance for large-scale Projects and Programs.
- Business units report to the BPPI on the follow-up of the Project and Program management requirements to enable the BPPI to monitor the progress of the Projects

5.2. Number of Large-Scale Projects and Programs in the Sample used in this Audit

Life cycle phase	Justification	Initiation	Planning	Execution	Closure
Projects	1	4	2	10	1
Programs with an end date	1	1	1	3	
Recurring programs	1		1	3	
Total	3	5	4	16	1

5.3. Composition of Governance Committees

Comité corporatif de gestion des projets et programmes d'envergure (CCGPE)	Comité de coordination des projets et programmes d'envergure (CCPE)	Executive committee (EC)
<ul style="list-style-type: none"> • Director general • Deputy directors-general (4) • Finance director • Director of the Bureau des projets et programmes d'immobilisations 	<ul style="list-style-type: none"> • Elected officials (8) • Director general • Deputy director-general of the Services Institutionnels • Director of the Bureau des projets et programmes d'immobilisations 	<ul style="list-style-type: none"> • Elected officials (12) • Mayor of Montréal



