

Framework Policy for the Governance of Major Public Infrastructure Projects



For further information on the Framework Policy for the Governance of Major Public Infrastructure Projects, contact the Sous-secrétariat aux marchés publics at the Secrétariat du Conseil du trésor.

Revised Edition, 2nd quarter 2009

Legal Deposit – 2009 Bibliothèque et Archives nationales du Québec Library and Archives Canada ISBN 978-2-550-55706-7 (print) ISBN 978-2-550-55707-4 (online)

Message from the Chair of the Conseil du trésor

For the strict management of major public infrastructure projects



The upkeep and improvement of existing public infrastructures as well as the acquisition of new infrastructures are among the government of Québec's priorities in the coming years. Investing in infrastructures of quality is an essential element in the support of the economy and employment.

To ensure the sound management of major infrastructure projects, rules are necessary to surmount the challenges that public bodies face not only at the outset of a project but also during its delivery. It is in this spirit that the Framework Policy for the Governance of Major Public Infrastructure Projects was adopted; a policy that will optimize the management of government resources in this type of project.

The main objective of this framework policy, which was inspired by some of the most effective policies implemented worldwide, is to ensure that a thorough and adequate planning of major infrastructure projects has been carried out so that decision makers possess all of the pertinent information, notably regarding the risks, the costs and the timeframes, to allow them to make solid decisions.

Considering that the planning stage is one of the key elements in the success of a major project, the framework policy subjects the business case, at various precise planning stages, to an evaluation of its quality by a committee of independent experts and to decisions of the Conseil du trésor and Cabinet. Public bodies are thus bound to a systematic planning process based on thoroughness, discipline, and government coherence.

A good number of representatives from government ministries and public bodies, associations representing professionals, and contractors from the construction industry were consulted beforehand to ensure that the Framework Policy addressed adequately all of their concerns. These representatives recognized the importance of implementing a management framework to avoid cost overruns and delays in the delivery of major projects.

The Framework Policy for the Governance of Major Public Infrastructure Projects is indispensable for the strict management of major projects essential to the growth and development of Québec society.

Monique Gagnon-Tremblay

Chair of the Conseil du trésor and Minister responsible

for Government Administration

Table of Contents

Framework Policy for the Governance of Major Public Infrastructure Projects

Background: From management to governance1
Preamble4
Targeted public bodies4
Targeted projects
Project delivery methods4
Stakeholders
Mandatory steps for carrying out a major project5
STEP 1: Developing the strategic presentation document
STEP 2: Developing the initial business case
STEP 3: Developing the final business case
Cost overrun
Coming into force
Appendix: Informational outline of the framework policy
Business case development guide
Developing the strategic presentation document9
Developing the initial business case
Developing the final business case

Framework Policy for the Governance of Major Public Infrastructure Projects

BACKGROUND

From management...

Investment in Québec's public infrastructure hit a peak in the 1960s and 70s. During this period, numerous public infrastructure projects were undertaken, notably in the health, education, transportation, and hydroelectricity sectors, leading to unprecedented economic, social, and cultural development for Québec society. This collective heritage is aging, and new investment is required to maintain, improve, and renew these infrastructures.

In the past two decades, the context in which major infrastructure projects have been undertaken has changed considerably. The state of public finances, rapid advances in technology, concern for the environment, the principles of sustainable development, and the growing presence of pressure groups in public debate are just some of the factors public bodies are faced with in carrying out major projects.

In fulfilling their respective missions, a host of Québec public bodies can undertake major infrastructure projects. To do so, government ministries and public bodies, as well as government corporations, organizations in the education and health and social services networks, and those at the municipal level have their own frameworks they must comply with in planning and delivering their large-scale projects. Consequently, the processes for project authorization, budget and acquisition approval, and management practices vary from one to the next, depending on the nature and value of the public infrastructure project.

When it comes to major building projects, public bodies generally follow a conventional method, either the traditional method which consists of hiring a single contractor to build the infrastructure, or the construction management method, whereby the public body or its agent coordinates construction by outsourcing the work to various contractors. Construction delivery models such as turnkey projects and public-private partnerships (PPPs) that are conducive to the emergence of innovative solutions are still relatively rare among public bodies

In June 2004, the Auditor General of Québec presented his audit on management of the project to extend the subway network to the City of Laval. Following the tabling of his report, the Secrétariat du Conseil du trésor teamed up with the Centre interuniversitaire de recherche en analyse des organisations (CIRANO) to examine ways to avoid cost overruns and significant delays in the construction of major public infrastructure projects.

Subsequent reports by the Auditor General of Québec highlighted the need for the government to adopt better planning and execution practices for its major public infrastructure projects. Among his audits, he examined the management of real estate projects undertaken by the Ministère de la Santé et des Services sociaux and the Corporation d'hébergement du Québec (June 2006) and conducted a special audit of the Université du Québec à Montréal (Part One in November 2007 and Part Two in June 2008).

In the course of its work, CIRANO conducted a comparative study of the main governance frameworks used in countries around the world and of twelve major public infrastructure projects carried out in Québec in recent years, from a perspective of the challenges and success factors. This analysis of best practices overseas and the context in which major public infrastructure projects are currently planned and executed in Québec led CIRANO to issue two recommendations aimed at improving the performance of public bodies in this area.

First, given the numerous regulations and policies concerning acquisitions by public bodies, CIRANO recommended harmonizing the regulations of government ministries and public bodies for the awarding of construction work contracts and contracts for professional services relating to construction. As regards this first recommendation, the Secrétariat du Conseil du trésor had already begun examining the way government contracts are governed. In fact, in June 2006, the National Assembly approved the *Act respecting contracting by* public bodies, an initiative set out in the Modernization Plan 2004–2007. This law harmonizes the contract process used by government ministries and public bodies, as well as organizations in the education and health and social services sectors. The Act respecting contracting by public bodies and its applicable regulations came into effect on October 1, 2008.

Second, with a view to optimizing management of major public infrastructure projects, CIRANO recommended implementing a governance framework. Since the work done by CIRANO brought to light the strategic importance of the planning stage in the success of major projects, the Secrétariat du Conseil du trésor decided to draft the Framework Policy for the Governance of Major Public Infrastructure Projects, which promotes use of the best planning practices for major projects by public bodies.

...to governance

To ensure good management of major public infrastructure projects, new rules are necessary in order to meet the challenges faced by public bodies when they undertake or carry out large-scale projects. According to CIRANO, three main factors can help improve the performance of public bodies in delivering major projects:

- ➤ An institutional framework that facilitates or imposes allocation of the appropriate resources
- ➤ Governance mechanisms that impose comprehensive and rational project planning
- ➤ Knowledge-building mechanisms that help collect and disseminate best practices with a view to promoting ongoing improvement¹

The new framework policy draws heavily on this observation. Its main objective is to ensure rigorous and appropriate planning of major public infrastructure projects in order to give decision makers access to all the information they need, notably with regard to risks, costs, and timeframes, so they can make informed decisions. The main features of the framework policy include:

- ➤ A clearly defined decision process
- ➤ A comprehensive business case
- ➤ A process to evaluate the business case

A clearly defined decision process

Major public infrastructure projects require considerable expenditure. To ensure that such projects have been rigorously planned and those chosen are the best possible projects, the Framework Policy for the Governance of Major Public Infrastructure Projects calls for a decision process based on three successive decisions.

^{1.} Centre interuniversitaire de recherche en analyse des organisations, "La gouvernance des grands projets d'infrastructure publique," Review of the literature presented to the Secrétariat du Conseil du trésor, 2006, pp. 17–18.

The first authorization public bodies must obtain is from the Conseil du trésor on the pertinence of putting together an initial business case, following examination of the strategic presentation document. The second is from Cabinet, which gives the green light to pursue the development of the selected projects, namely those that offer the best solution to meet a specific need, as well as to the project delivery method, be it a conventional or the PPP approach. The third decision is also handed down by Cabinet for final business case approval of conventionally contracted projects or approval of the agreement to be concluded between the public body and the partner, where the PPP is the preferred approach.

A comprehensive business case

For every project targeted by the Framework Policy for the Governance of Major Public Infrastructure Projects, the public body must produce a business case including all the studies it must conduct. This business case has three sections corresponding to each of the three stages required for major projects under the framework policy.

The strategic presentation document describes and justifies the need and anticipated results. The initial business case makes a detailed evaluation of the possible options, including the preferred option, and recommends the best delivery method. Lastly, the final business case sets out, as comprehensively and realistically as possible, every aspect of the project using conventional contracting, notably with regard to risks, costs, and timeframe.

A process to evaluate the business case

The Framework Policy for the Governance of Major Public Infrastructure Projects calls for a process to evaluate the business case before it is submitted to Cabinet.

If a conventional delivery method is to be used, the initial business case is evaluated by a committee of independent experts so mandated. The final business case must also be examined by a committee of independent experts.

When the project is planned as a PPP, in accordance with the application of Section 8 of the *Act respecting the Agence des partenariats public-privé du Québec*, the initial business case is evaluated by the board of directors of the Agence des partenariats public-privé du Québec if a ministry department is directly responsible for the delivery of the project. In the case of other public bodies, the evaluation can be performed either by the board of directors or by a committee of independent experts, as per their choice.

The Framework Policy for the Governance of Major Public Infrastructure is presented in detail below and in diagram form in the appendix.

Preamble

To optimize management of government resources in delivering large-scale projects, the Government of Québec has adopted the Framework Policy for the Governance of Major Public Infrastructure Projects, which reflects its efforts to modernize the State.

This framework policy introduces a systematic process based on thoroughness, discipline, and government coherence. Its objective is to get public bodies to employ better planning practices for major public infrastructure projects in order to identify risks and estimate costs and timeframes as comprehensively and realistically as possible. While the framework policy is aimed at large-scale projects, public bodies are encouraged to adopt the good practices it sets out and adapt them to their smaller projects.

Targeted public bodies

1. In the application of this Framework Policy for the Governance of Major Public Infrastructure Projects, public bodies are those defined in Section 4 of the *Act respecting contracting by public bodies* (2006, c. 29), as well as the Agence métropolitaine de transport and any other body designated as such by Cabinet.

Targeted projects

- 2. The Framework Policy for the Governance of Major Public Infrastructure Projects applies to the following:
 - 1° Any building construction or rebuilding project, or any road or other civil engineering infrastructure project deemed "major" according to Section 8 of the Act respecting the Agence des partenariats public-privé du Québec (R.S.Q., c. A-7.002)
 - 2° Any other project as determined by Cabinet

For the application of this section, construction projects consist of the addition or replacement of a building, or road or other civil engineering infrastructure.

Rebuilding projects consist of work aimed at improving or restoring a building, road

infrastructure, or other existing civil engineering work to its original state.

However, in cases where a road infrastructure rebuilding project aims to restore the structure to its original state or improve less than 50% of it, and the work requires specific intervention or intervention over a period of no more than five years, the framework policy applies only to projects whose estimated capital outlay is \$100 million or more.

Project delivery methods

- 3. The Framework Policy for the Governance of Major Public Infrastructure Projects allows for two kinds of delivery methods—conventional and public-private partnerships (PPPs):
 - 1° The conventional delivery method, which includes the following:
 - a) Traditional method, which consists of completing detailed plans and specifications before launching a public call for tenders to hire a single contractor to build the infrastructure
 - b) Construction management method, which consists of the public body or its agent entrusting construction of the infrastructure to multiple contractors once all detailed plans and specifications for the various phases have been completed
 - c) Turnkey method, which consists of the public body hiring a single company or group of companies to handle all architectural and engineering plans and specifications, as well as acquisitions and construction of the infrastructure

However, for the construction management and turnkey delivery methods, the public body must justify its choice by quantifying the benefits and added value of the proposed approach (pros and cons of the management of risks associated with costs and deadlines).

Project delivery in engineering, procurement, and construction management (EPCM) mode is excluded.

2° PPPs, as per the meaning of Section 6 of the *Act respecting the Agence des partenariats public-privé du Québec*

Stakeholders

4. The stakeholders targeted by the implementation of the Framework Policy for the Governance of Major Public Infrastructure Projects are public bodies, the Secrétariat du Conseil du trésor (the SCT), and the Agence des partenariats public-privé du Québec (the Agence des PPP).

With regard to its application, public bodies remain responsible for delivery of their major projects.

This framework policy also includes the setting up of committees of independent experts to evaluate the business cases submitted by public bodies. These committees, depending on the nature and complexity of the projects, are made up of experts from various fields such as architecture, engineering, finance, the environment, economics, and project management.

For projects delivered using a conventional method, a committee of independent experts evaluates the quality of the business cases submitted.

For projects to be delivered in the PPP mode, in accordance with the application of Section 8 of the *Act respecting the Agence des partenariats public-privé du Québec*, the initial business case is evaluated by the board of directors of the Agence des PPP if a ministry department is directly responsible for the delivery of the project. In the case of other public bodies, the evaluation can be performed by either the board of directors or by a committee of independent experts, as per their choice.

The experts are selected by the SCT based on the type of project and expertise required. However, the public body that submits a business case is responsible for paying the professional fees of these experts, in accordance with the conditions set out by the SCT.

For public bodies in the education and health and social services sectors, applications for evaluation of business cases by the Agence des PPP or the SCT must be made by the ministry to which the public body is accountable.

Mandatory steps for carrying out a major project

5. The Framework Policy for the Governance of Major Public Infrastructure Projects includes three steps.

STEP 1: Developing the strategic presentation document

- 6. For each major project that it wishes to carry out, the public body prepares a strategic presentation document, notably including the following studies:
 - 1° Description and justification of the need for the project and its anticipated results
 - 2° Preliminary identification of options (with an indication of the most plausible one) and an order-of-magnitude project cost estimate
 - 3° Identification of sociopolitical issues and their management
 - 4° Preliminary assessment of the appropriateness of conducting the project as a PPP
 - 5° Communications management
 - 6° Cost estimate of the studies required to draw up an initial business case
- 7. The minister responsible for the public body submits a brief about the strategic presentation document to the Conseil du trésor, which, upon reviewing this brief, may authorize it to proceed with the initial business case.

STEP 2: Developing the initial business case

- 8. The public body prepares an initial business case notably including the following components:
 - 1° Update of description and justification of need
 - 2° Update of anticipated results
 - 3° Draft of functional and technical program (FTP) and preconcept or opportunity studies, depending on whether the project involves a building, road, or another civil engineering structure
 - 4° Detailed evaluation of the options, including the *status quo*
 - 5° Preferred option and its estimated cost, including contingencies (a margin of error may be specified in the initial business case)
 - 6° Update of the sociopolitical issues analysis and management plan
 - 7° Evaluation of project delivery method for the preferred option and identification of the most appropriate method
 - 8° Budget impact assessment
 - 9° Communications plan
 - 10° Cost estimate of the studies required to draw up the final business case if a conventional delivery method is planned
- 9. Notably to ensure that the recommended option is the optimal solution based on the options analyzed and that the planned delivery method is the most appropriate:
 - 1° A committee of independent experts assesses the quality of the initial business case of a project slated to be delivered using a conventional method
 - 2° The board of directors of the Agence des PPP or a committee of independent experts evaluates the quality of the initial business case for a planned PPP project

- 10. The minister responsible for the public body submits a brief on the initial business case to Cabinet, which, upon reviewing this brief, may greenlight the pursuit of the project–either using the PPP or a conventional method.
- 11. For projects delivered using a conventional method, the public body continues developing the project by drawing up a final business case.
- 12. For projects using the PPP delivery method, the public body continues developing the project in accordance with the Public-Private Partnerships Framework Policy.

Following the private partner acquisition process, the minister responsible for the public body submits a brief on the proposed partnership agreement for Cabinet approval.

STEP 3: Developing the final business case

- 13. The public body prepares a final business case, notably including the following detailed studies on the preferred option:
 - 1° Value analysis of the preferred option
 - 2° Confirmation of the technical and technological feasibility of the project
 - 3° Project management plan
 - 4° Major risk management plan
 - 5° Updates of benefit-cost and budget impact analyses
 - 6° Project team
 - 7° Project cost estimate, including contingencies (a margin of error may be specified in the final business case), as well as a project schedule
 - 8° Communications plan

For projects using a turnkey delivery method, since the design, acquisitions, and construction are entrusted to a single company or group of companies, the public body adapts its final business case as warranted.

14. A committee of independent experts assesses the quality of the final business case and draws up a preliminary opinion based notably on the preliminary plans and specifications, and cost estimates, the quality of the technical and technological feasibility studies, and the preferred option value analysis.

When the public body has completed all of the studies, the committee of independent experts completes its quality assessment by drawing up a definitive opinion on the quality of the final business case.

15. The minister responsible for the public body submits a brief on the final business case for approval by Cabinet.

Cost overrun

16. For projects delivered using a conventional method, the responsible minister submits information about any overruns (even when expected) of 5% or more of the estimated project cost to Cabinet for its consideration.

For projects in progress at the time that the framework policy comes into force, the 5% rule applies and is calculated based on the amount due or the contract(s) signed to build the infrastructure.

17. For projects using the PPP delivery method, the responsible minister submits information about any overruns (even when expected) of 5% or more of the public disbursements indicated in the partnership agreement to Cabinet for its consideration.

For projects whose partnership agreement was signed before the coming into force of the framework policy, the 5% rule applies.

Coming into force

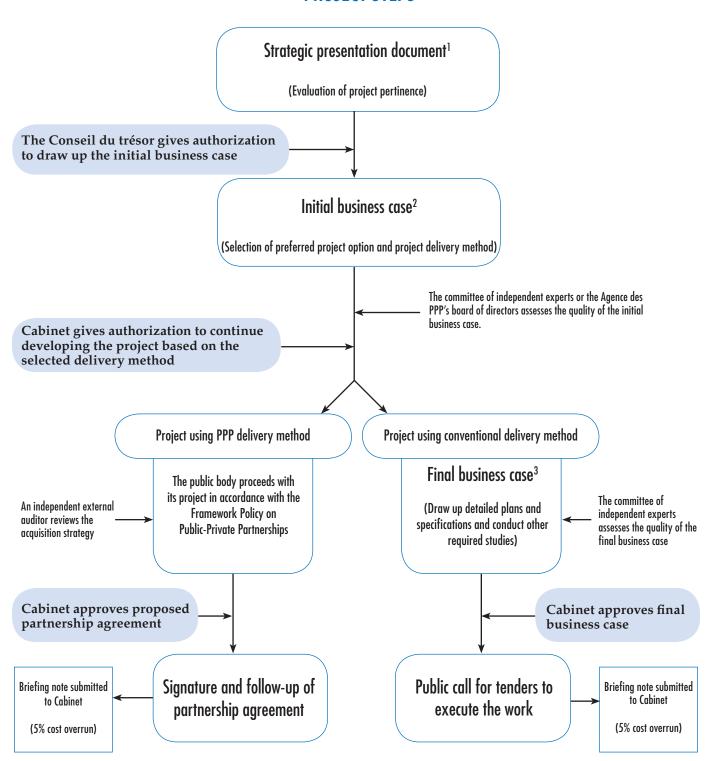
18. The Framework Policy on the Governance of Major Public Infrastructure Projects comes into force on November 5, 2008, and applies to all new projects that must be submitted to the Conseil du trésor in the form of a strategic presentation document.

However, projects whose preliminary plans and specifications have not yet been undertaken before the coming into force of this framework policy and of which the Conseil du trésor or Cabinet has not been able to assess the budget or financial impact must be submitted to Cabinet in the form of an initial business case.

APPENDIX

Informational outline of the framework policy

PROJECT STEPS



- 1. In Step 1, the project's estimated cost may have a margin of error of 20% to 100%.
- 2. In Step 2, the project's estimated cost may have a margin of error of 15% to 30%.
- 3. In Step 3, the project's estimated cost may have a margin of error of 0% to 5%.

Business case development guide

Currently, authorization to conduct major infrastructure and service delivery projects using the public-private partnership (PPP) approach requires a business case based on the method developed by the Secrétariat du Conseil du trésor (*Le Dossier d'affaires – Guide d'élaboration*, September 2002). This method is currently being revised in order to adapt it to the Framework Policy for the Governance of Major Public Infrastructure Projects.

In drawing up their business cases for projects delivered using the PPP or a conventional delivery method, public bodies must now carry out specific studies for each step. To illustrate these studies, we give an overview of the next version of the business case development guide below.

STEP 1: Developing the strategic presentation document

- 1. Description and justification of the need for the project and its anticipated results
 - 1° The public body describes the current situation and the issues at stake. To this effect, it must:
 - a) Demonstrate (through analyses such as clientele surveys, market studies, etc.) the difference between the current and anticipated situations
 - b) Demonstrate the importance and necessity of the infrastructure in question or of any non-structural solution to meet the need and explain the impact of the status quo; identify and present documented support of the factors contributing to the need (demographics, technology, legislative changes, sustainable development, etc.)

- c) Clearly demonstrate the ties between the need expressed, government priorities, strategic objectives, and its own regional priorities
- d) Indicate whether the infrastructure is a stand-alone project or if it will be incorporated into a set of projects to be completed in successive phases; indicate whether or not other phases have preceded the current infrastructure project and describe them briefly, indicating the construction costs; if other phases are planned, describe them briefly
- 2° The public body describes the main anticipated results, notably in terms of functionalities and expected performance requirements (particularly with regard to the services provided to the target clienteles), and specifies the desired timeframe.
- 3° The public body indicates whether it has received contributions from other bodies (federal, municipal, foundations, etc.) or if it will take steps in this regard.
- 2. Preliminary identification of options with an indication of the most plausible one, and an order-of-magnitude project cost estimate
 - 1° The public body gives its preliminary findings on the options that appear the most plausible and lists their advantages and disadvantages.
 - 2° The public body indicates the option it sees as most plausible and gives an order-of-magnitude cost estimate of the project throughout its life cycle.

3. Identification of sociopolitical issues and their management

- 1° In addition to identifying the direct clientele and taking into account the possible options, the public body identifies the main individuals or groups in society that the project could positively or negatively affect, as well as the challenges the project represents for them.
- 2° Taking into account the possible options, the public body identifies the sociopolitical risks and quantifies their potential impact. It draws up a summary sociopolitical issues management plan and indicates its preliminary management strategies for these issues.

4. Preliminary assessment of the appropriateness of conducting the project as a PPP

The public body must evaluate the possibility of using the PPP method. To do so, it conducts a preliminary evaluation to determine whether the most plausible option presents certain characteristics such as:

- 1° Separability (ability to clearly isolate the responsibilities entrusted to the private partner)
- 2° Measurability (ability to measure the quantity and quality of the results to be obtained)
- 3° Existence of a competitive market (a sufficient number of suppliers)
- 4° Private sector interest
- 5° Existence of PPPs in the sector

5. Communications management

The public body presents the steps it will take to manage public communications associated with the project, taking into account the fact that the information available at this stage is preliminary, notably with regard to costs and timeframes.

6. Cost estimate of the studies required to draw up an initial business case

The public body gives a cost estimate of the studies required to draw up its initial business case and indicates whether it has the necessary budget. It also gives the expected date to conduct the studies.

STEP 2: Developing the initial business case

1. Update of description and justification of need

The public body updates the description of the current situation, the problems, the analysis that confirms the need for the infrastructure in question, and the ties between the need expressed, government priorities, strategic objectives, and its own regional priorities.

2. Update of anticipated results

The public body updates the anticipated results, notably in terms of functionalities and the requirements associated with the expected performance, particularly with regard to the services provided to the target clienteles, by specifying the desired project timeframe.

3. Draft of the functional and technical program (FTP) and preconcept or opportunity studies

In order to describe all of the needs and anticipated results, the following key components must be taken into consideration:

- 1° Timeframe
- 2° Costs
- 3° Quality
- 4° Level of public or user satisfaction
- 5° Risks

Performance requirements are expressed in the form of the characteristics that the infrastructure must present and the minimum functions it must fulfill. They are established based on the anticipated results listed previously.

4. Detailed evaluation of the options, including the *status quo*

- 1° The public body demonstrates the consequences on target clienteles of not building the infrastructure (*status quo*), notably including an analysis of the risks associated with the rendering of services and benefit-cost analysis.
- 2° Taking into account the infrastructure's life cycle, the detailed evaluation addresses the following issues for each option:
 - a) Technical and technological feasibility (preparatory studies)
 - b) Impact on human resources
 - c) Regulatory, legal, and environmental impact
 - d) Consideration of sustainable development principles
 - e) The project's impact on the natural and built environment, including the historic, heritage, and archeological potential
 - f) Risk analysis
 - g) Benefit-cost analysis

5. Preferred option and its estimated cost

The public body indicates its preferred option among those evaluated and hilights the following:

- 1° Costs (including contingencies) and specifies the possible margin of error
- 2° Timeframes and their degree of accuracy

6. Update of sociopolitical issues analysis and management plan

The public body updates the sociopolitical issues management plan as well as the costs associated with its implementation.

7. Evaluation of project delivery method for the preferred option and indication of the most appropriate method

- 1° Update the opportunity of using the PPP method, taking into consideration the following factors:
 - *a*) Separability (ability to clearly isolate the responsibilities entrusted to the private partner)
 - b) Measurability (ability to measure the quantity and quality of the results to be obtained)
 - c) Existence of a competitive market (a sufficient number of suppliers)
 - *d*) Private sector interest
 - e) Existence of PPPs in the sector
- 2° Identify the potential added value of carrying out the project as a PPP, notably taking into consideration the following factors:
 - *a*) Increasing service quality
 - b) Reducing project costs
 - c) Mitigating risks
 - *d*) Providing a framework conducive to innovation
 - e) Accelerating project completion
 - f) Facilitating budget management
 - g) Additional sources of income
 - *h*) Developing exportable know-how

- 3° Determine the value of the public funds invested in order to establish whether the PPP delivery method is appropriate, notably taking into consideration the following factors:
 - a) Establishing a reference project
 - b) Establishing a public comparator
 - c) Conducting a value analysis

If the PPP is not the proposed delivery method, the public body proceeds with the project according to a conventional method (i.e., traditional, construction management, or turnkey). However, for construction management and turnkey, the public body must justify its choice by quantifying the benefits and added value of the proposed approach (pros and cons of managing the risks associated with the costs and deadlines).

8. Budget impact assessment

The public body assesses the budgetary impact of the preferred option.

9. Communications plan

The public body updates and presents the communications strategy related to its infrastructure project.

10. Cost estimate of the studies required to draw up the final business case

For projects carried out according to a conventional delivery method, the public body gives a cost estimate of the studies required to draw up its final business case and indicates whether it has the necessary budget. It also indicates the expected date to conduct the studies.

STEP 3: Developing the final business case

With regard to the preferred option, the public body conducts the following studies:

1. Value analysis of the preferred option

Based on the preliminary plans and specifications, this study is designed to obtain the best value from the preferred option, by conducting comparative evaluations of the materials and approaches and notably taking into consideration the following factors:

- 1° Efficiency
- 2° Costs
- 3° Productivity
- 4° Quality
- 5° Timeframes

2. Confirmation of the technical and technological feasibility

This study is conducted after the following have been developed:

- 1° Detailed plans and specifications
- 2° Cost estimates

3. Project management plan

The management plan identifies the strategies and project management methods from the beginning to the end of the project, notably taking into consideration:

- 1° Human resources
- 2° Financing
- 3° Quality assurance
- 4° Safety
- 5° Timeframes

4. Major risk management plan

This plan ensures that the appropriate updates were made to the risk analyses as the project was clarified and reevaluates whether the contingencies still meet the needs. It must notably take into consideration the following risks:

- 1° Sociopolitical
- 2° Environmental
- 3° Financial
- 4° Market-related
- 5° Technical
- 6° Operational
- 7° Respect of deadlines

5. Updates of benefit-cost and budget impact analyses

These studies are designed to update the benefitcost and budgetary impact analyses of the preferred option.

6. Project team

This study is designed to ensure that the human resources allocated to the project (including professionals) are sufficient and that they have the necessary expertise.

7. Project cost estimate and project timeframe

The public body indicates:

- 1° The estimated cost of the project, including contingencies, and specifies the potential margin of error
- 2° The project completion timeframe

8. Communications plan

The public body updates and presents the communications strategy related to its infrastructure project.

