



PMI-Montréal Inc.

**Memorandum submitted to the
Commission of Inquiry on the
Awarding and Management of Public
Contracts in the Construction Industry**



PMI-Montréal

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Introduction

PMI-Montréal, a leading professional association comprising some 3,700 project managers in Québec, fully supports the assignment given to the Charbonneau Commission and acknowledges its considerable complexity. Considering their undeniable expertise, the commissioners are quite capable of rising to the challenge and we are confident that the assignment is in good hands.¹

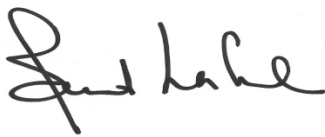
PMI-Montréal and its members have been keeping a close eye on the Commission's work from the very beginning and would like to express their views on issues which inevitably affect our profession.

PMI-Montréal is aware that the Commission's work will lead to recommendations which will directly or indirectly affect management practices regarding projects, public contracts, programs and portfolios. We therefore consider it appropriate to share a few of our thoughts with the Commission.

In doing so, we hope to bring awareness to the existence of best project management practices in the construction industry, which are in the interest of the population and public finances.

This memorandum is the product of the work, consultation and reflection of the largest association of project managers in Québec.

It should be noted that this is the second time PMI®-Montréal has submitted a memorandum to public authorities. A similar document was submitted to the *Conseil du trésor du Québec* in 2006.



Benoit Lalonde, MGP, MBA, ADM.A, PMP, CPM, OPM3, RMP

President, PMI-Montreal

¹ Charbonneau Commission mandate; <https://www.ceic.gouv.qc.ca/la-commission/mandat.html>

1. to examine the existence of schemes and, where appropriate, to paint a portrait of activities involving collusion and corruption in the provision and management of public contracts in the construction industry (including private organizations, government enterprises and municipalities) and to include any possible links with the financing of political parties;
2. to paint a picture of possible organized crime infiltration in the construction industry; and
3. to examine possible solutions and make recommendations establishing measures to identify, eliminate and prevent collusion and corruption in the awarding and management of public contracts in the construction industry and to prevent organized crime from infiltrating them.

Who are PMI® and PMI-Montréal?

PMI® – Project Management Institute

PMI® (Project Management Institute) is a not for profit organization and one of the largest professional associations for project managers in the world. Its resources help over 700,000 members, volunteers and certification holders develop their skills and careers and contribute to the success of their organizations.

PMI®'s mission is made possible by the worldwide recognition of its standards, certification and research programs, as well as its many regional chapters and communities of practice.

The aforementioned elements include:

- [A Guide to the Project Management Body of Knowledge \(PMBOK® Guide\)](#), the first edition of which was published in 1996; it is now in its fifth edition. This document describes the best project management practices and has become a reference in the matter throughout the world.
- The [Project Management Professional \(PMP®\) Certification Program](#), launched in 1984, has been designed to provide industry professionals and employers with a designation specific to the project management industry. To date, over 500,000 people throughout the world are PMP® credential holders and an increasing number of employers are making it a prerequisite for employment as a project director, manager or leader.

Today, PMI® continues to enhance its service offering by adding certification programs targeting additional interest groups (CAPM® certification for those beginning or undertaking a career in the industry; PgMP® certification for program managers; development of portfolio management standards, etc.).

PMI®'s global presence is ensured by its 286 regional chapters established throughout 197 countries.

Certification	Title	Year it was created	Number of holders
Project Management Professional	PMP®	1984	545,015
Certified Associate in Project Management	CAPM®	2003	21,915
PMI Agile Certified Professional	PMI-ACP®	2012	3,056
PMI Risk Management Professional	PMI-RMP®	2008	2,115
Program Management Professional	PgMP®	2007	898
PMI Scheduling Management Professional	PMI-SP®	2008	911

Table 1: Global statistics regarding PMI® membership - June 2013

PMI-Montréal

Founded in 1977, PMI-Montréal is one of the most important chapters of the Project Management Institute (PMI®) and its largest Francophone chapter. Today, the association encompasses more than 3,700 individual members from all fields of the profession: engineering, aerospace, construction, information technology, pharmaceuticals, telecommunication, etc., in addition to the numerous project management fields of a more administrative or social nature. PMI-Montréal's territory covers the entire province of Québec, with the exception of Lévis, Québec, Rimouski, Chicoutimi and Gatineau.

Led by a Board of Directors formed of volunteers and elected by its members, PMI-Montréal organizes many activities and offers a wide variety of services to its members, including private and public PMP®, CAPM®, PMI-ACP® and PgMP® certification training seminars.

PMI-Montréal was repeatedly recognized by the PMI® community for the excellence and drive of its members. The chapter received a number of awards including "Chapter of the Year" in 2007 and 2012.

Montréal has been shining in the project management industry since the 60s, and continues to do so today. Experts consider Expo '67 to be the first civil project to involve project management, which applied the principles developed by the Allies for the landings and the implementation of the Marshall Plan.² Ever since, Québec has been known for its numerous research and educational programs in project management, the very first of which was launched in 1976, with the creation of the UQAM. Today, the expertise is shared and Montréal is recognized as a centre of excellence due to its many universities (ESG-UQAM - MGP, HEC, McGill, École Polytechnique de Montréal, Concordia, ÉTS, Université de Montréal - MGPA, Université de Sherbrooke, UQTR).

At the heart of all this activity, PMI-Montréal's mission is to promote best practices in project management, fostering the professional development of project managers and the success of organizations and projects realized in Québec.

² http://expo67.ncf.ca/expo_67_critical_path_method_p1.html

Project managers and their code of ethics

PMI® defines a project manager or leader as follows:

“The project manager is the person assigned by the performing organization to be responsible for achieving the project objectives. The role of a project manager is distinct from a functional manager or operations manager.”³

As such, project managers apply recognized and proven knowledge, skills, processes, tools and techniques in order to meet the project’s requirements. Managing a project typically includes:⁴

- Identifying requirements;
- Addressing the various needs, concerns, and expectations of the stakeholders in planning and executing the project;
- Balancing the competing project constraints, which include:
 - Content;
 - Quality;
 - Schedule;
 - Budget;
 - Resources, and
 - Risks.

Project managers must behave as professionals, as they ensure that the project is executed smoothly and monitor the project and the achievement of its objectives:

“As practitioners of project management, we are committed to doing what is right and honourable. We set high standards for ourselves and we aspire to meet these standards in all aspects of our lives—at work, at home, and in service to our profession.”⁵

Furthermore, PMI® is concerned with the dissemination of best practices in project portfolio management, which is a discipline focused on implementing methods and tools to ensure that an organization undertakes and completes the right projects and, especially, that it selects projects which will respect its strategic plan and capacity to deliver.

³ A Guide to the Project Management Body of Knowledge (PMBOK Guide), 4th edition, 2008, Project Management Institute

⁴ Code of Ethics and Professional Conduct, Project Management Institute

⁵ Code of Ethics and Professional Conduct, Project Management Institute

The discipline of project management

Over the years, PMI® has defined and formalized the practice of project management into a recognized set of coherent practices and techniques. A total of 47 processes are listed in the “Guide to the Project Management Body of Knowledge”. The processes are categorized into five groups (Initiating, Planning, Executing, Monitoring and Controlling, and Closing) and according to ten knowledge areas (Integration, Scope, Time, Cost, Quality, Risk, Communications, Human Resources, Procurement and Stakeholders).

For nearly 20 years, these practices have guided public and private organizations in developing a methodology which is adapted to their reality, in order to ensure project success and minimize the risks of failure along the critical path or variances of all kinds.

The purpose of our intervention

As a key stakeholder in the world of project management, PMI-Montréal has been keeping a close eye on the Commission’s work and would like to make a constructive contribution by intervening. Aware that the Commission will be drawing up recommendations affecting the management of public projects, namely regarding the awarding and management of contracts in the construction industry, we have two objectives:

- a) Protecting public interest: PMI-Montréal believes that it can propose potential recommendations which would serve the public interest.
- b) Ensure effectiveness: We believe that protecting public interest must also involve establishing and meeting performance and effectiveness objectives in the context of project management processes.

We are perfectly aware of the limits of our intervention and contribution to the fight against corruption and collusion. As external observers of the Commission, it seems clear to us that the majority of the cases which have made headlines could not have been prevented solely by the implementation of sound project management practices. No management method could ever entirely prevent such practices.

However, we believe that the techniques and tools promoted by organizations such as PMI® can greatly contribute to the sound management of public funds and more effective investments at various levels of government.

The purpose of this memorandum is therefore to increase the Commission’s awareness regarding the existence of best project management practices, to ensure that its recommendations pertaining to corruption and collusion will be all the more relevant, as they will also contribute to increasing the effectiveness of public projects in Québec – all in the interest of the public and State. Also, as a representative of industry professionals, PMI-

Montréal strongly believes that best management practices can only help reduce collusion and corruption problems.

General observations

After reading recent reports issued by the Government of Québec, PMI-Montréal has made a certain number of observations which seem quite relevant to us.

Working in silos

It seems that there still exists, within a number of public organizations, a type of management model which could be qualified as compartmentalized or “functional management” (sometimes also known as “silo management”). In this type of structure, each position or sector within the organization manages the part of the project which is specific to its expertise. The project therefore progresses from one phase to the next, with a different person responsible for coordinating work in each phase, who is most often the functional manager of the relevant department or service.

We by no means intend to debate the disadvantages of this type of management (which causes a bottleneck effect, as the department manager is limited in his or her capacity to manage the phases of the various projects involving said department). However, it is important to note that in this type of management, no one has an integrated overall view of the entire project, nor of its accountability.

This lack of integration and overall vision also leads to the following consequences:

- The lack of a clear integrated vision makes it easier to conceal cost overruns at every step of the process;
- The absence of an integrated vision causes projects to be subject to contradictions. In other words, the right hand doesn't know what the left is doing.
- Dividing accountability makes accounting more difficult.
- The relevance of changes to be made to a project further down the line which are attributable to errors made at a previous stage will be difficult to justify or reject due to the absence of expertise once a step has been completed.

The practice of awarding contracts to the lowest bidder

We have strong reasons to believe that systematically awarding contracts to the lowest bidder is a source of collusion in Québec.

When two contractors are aware that to obtain a contract they must lower their prices as much as possible, to the point that they must cut their profits (or even, in certain cases, take a loss on

at least a part of their costs), it is likely that they will come to an agreement in order to share the market rather than lose their shirts.

That is excluding cases wherein one of the two contractors bids an abnormally low price, knowing that, lacking expertise, the public organization has omitted interesting details in its call for tenders. These are details which the contractor will assuredly take advantage of in a potential series of contract amendments which will be difficult to reject. This situation occurs most often when professionals are selected according to the lowest bid, and asked to deliver a project of impossible scope, at impossible costs, all while respecting impossible deadlines.

Managing contract amendments

A recent report described a culture of management by contract amendments within a number of public organizations. Of course, it is normal for changes to take place during a project's execution. After all, is a project not a "temporary endeavour undertaken to create a unique product, service, or result?" In that sense:

*"There are a number of reasons which could explain or justify these changes. Contract amendments are commonly present in the execution of the types of contracts being analyzed and the processing mechanism for contract amendments is an integral part of a contract. Certain contract amendments result in additional costs to the initial contract; while others do not necessarily have any direct financial repercussions."*⁶

However, insufficient planning as well as defective change management and control mechanisms can contribute to significantly increasing the impact of changes and open the door to all kinds of abuse. Managing in silos also leads to a lack of accountability, which contributes to allowing such variances and potential abuse. A rigorous change management process must therefore be implemented, within the project as well as externally.

A well-defined need, correctly defining inclusions and exclusions, which are all documented and approved by the client, is a critical basic element of sound project management. **A poorly defined need will be poorly planned and will inevitably result in a number of changes.** The best trade practices promoted by PMI® suggest developing a detailed project brief and a project plan supporting the brief and including schedules, a budget, predicted risks and tracking mechanisms which are adapted to the project. These tools exist and are internationally known as PMI® best practices.

⁶ KPMG-SECOR report "Revue indépendante de la gestion contractuelle des dépenses supplémentaires associées à des contrats de construction et de services de certains organismes publics québécois" p.1 submitted to the Secrétariat du Conseil du Trésor – June 10, 2013

A significant number of contract amendments, additions and changes made to projects are often the result of incorrectly executed need analyses, of planning which did not follow best practices and a less than rigorous follow-up of the project's progress.

Governance and conflicts of interest

Could certain practices currently being applied in Québec and elsewhere regarding project governance and management result in a certain type of conflict of interest? It is not unusual to see certain firms offer project management as well as project execution services. To what extent does the client ensure the impartiality of its contractual project managers if they also work for the employers executing the work? We believe that the answer lies in asking the question.

Certain jurisdictions, described in the “Recommendations” section, strive to preserve the integrity of contractual professionals by ensuring a clear separation between the project owner and the contractor.

Effect on project portfolios

In the absence of practices in project portfolio management, or should we say the absence of practices, result in significant volatility during project execution. In fact, in the absence of a public dissemination mechanism regarding project portfolios, it is relatively simple for a State decision-maker to influence the execution of a particular project. This phenomenon not only opens the door to suspicious activity, it also makes it difficult for employees of the State to carry out their work.

Absence or lack of data regarding project performance

In Québec, there is no centralized database which could be used as a reference by small and medium-sized municipalities. As they do not have the means to put in place project offices or other structures or processes in order to capitalize on lessons learned, nor do they have a volume of projects sufficient to accumulate significant correct data, their employees are at the mercy of the expertise of the firms with which they do business.

Recommendations

In recent years, a number of countries have re-engineered their construction project management and governance practices on a large scale and the results have been conclusive. For example, the British government has revised its framework for the organizational management of construction projects.⁷ The Norwegian and Australian governments also took similar steps aiming to promote transparency and rigor in the identification, planning and tracking processes for project programs; each phase is now followed by the validation and verification of deliverables.

PMI-Montréal suggests that the Commission take the following eight suggestions into account when drawing up its recommendations.

1. Decompartmentalizing projects and adopting interdisciplinary working methods

Best project management practices promote interdisciplinary operations and the introduction of the role of project manager to ensure that the project runs smoothly. The project manager is responsible for managing and coordinating the entire project, from beginning to end, throughout every phase. With this approach, which is sometimes referred to as matrix management, the project manager has the responsibility and authority to manage teams transversally, thereby increasing the organization's efficiency.

Having a single team manage the project from beginning to end will make it easier to detect irregularities, inconsistencies and anomalies. The ARAMCO project is one such example. The project, which was to build new natural gas production facilities in Saudi Arabia, won PMI® International's Project of the Year award in 2004. From the start of the project in 2000, ARAMCO introduced an integrated project team which included members of maintenance groups as well as engineers, so that they might work closely with one another in executing plans according to preliminary specifications. Team work greatly contributed to reducing deadlines and the number of contract amendments during the construction period. We can easily speculate that reducing the number of contract amendments would reduce the number of potential irregularities.⁸

The British government introduced the role of Chief Construction Adviser (CCA) in 2008. The CCA, now in his third mandate, is tasked to supervise the reforms of the procurement strategy in public construction projects. Adoption of this method has led to a 10% cost reduction out of a total 2.6 billion pounds. Savings totalling 279 million pounds over the

⁷ « Managing projects more effectively », <https://www.gov.uk/government/policies/managing-major-projects-more-effectively> et « Rethinking Construction », Sir John Egan, Construction Task Force, 1998

⁸ "PMI® Case Study – Saudi ARAMCO Haradh Gas Project" - 2004 PMI® Project of the Year

buildings' lifespan were identified, including 72 million were directly attributable to construction costs.⁹

2. Applying a project management methodology

PMI-Montréal recommends that public organizations adopt project management methods which have been developed according to trade practices and adapted to their realities. The absence of a clear rigorous methodology inevitably leads to poorly managed projects, delays and cost overruns. Of course, such variances can be caused by a number of factors, but irregularities and other suspicious actions are among said factors.

A methodology of this type should include the following aspects:

Adaptability: We are by no means suggesting attempting to set out a single standardized method for all public organizations. A \$500,000 project cannot be managed in the same way as a \$500 million project. Each organization must develop its own method according to its individual needs. However, the rigorous application of a standardized method for a wide number of project categories would greatly contribute to improving project performance.

Project planning: Improving upstream project management, in terms of costs, risks and schedule, would result in less changes and a lesser impact caused by changes during the project's execution.¹⁰

Managing project integrity: Adopting a work method which involves a single individual managing the project from beginning to end, would promote an integrated vision of the project. However, the work method must also take into consideration the fact that project variables are interrelated. For example, increasing the scope of a project generally increases costs and pushes back deadlines.

Change management: An effective project management process includes a change management component. This component involves a certain number of mechanisms, including the implementation of a change management committee and the establishment of classification rules based on the nature of the changes and their impact on the various aspects of the project (scope, time, costs, risks, etc.).

3. Taking risk management into account for every project

PMI-Montréal recommends that the government make risk management an integral part of all public projects. Unforeseen events are an integral part of projects and must be managed in such a way as to minimize their impact on project execution. However, we are often unaware of the risks in numerous projects. A project management method

⁹ http://www.designingbuildings.co.uk/wiki/Government_construction_strategy#Progress

¹⁰ "PMI® Case Study – Saudi ARAMCO Haradh Gas Project" - 2004 PMI® Project of the Year

worthy of its name includes a risk management component and plans for appropriate protection and contingency mechanisms.

4. Revising certain contract management practices

PMI-Montréal recommends that the government revise certain contract management practices. For example, the use of timesheets to calculate professional fees does not seem to be as widespread in public projects as it is in other sectors. Implementing such mechanisms would allow more rigorous management and better results; it would also highlight irregularities more easily.

5. Abolishing the practice of awarding contracts to the lowest bidder

PMI-Montréal recommends that the practice of awarding contracts to the lowest bidder be abolished. Far be it from us to excuse the behaviour which was revealed to the Commission; however, contract management cannot be discussed without questioning the practice of awarding contracts to the lowest bidder. There are a number of reasons which lead one to believe that this practice has contributed to the emergence of irregular behaviour in certain bidders. Other practices regarding awarding contracts, such as the “Best Value” principle, have proven successful within a number of public organizations worldwide, including the U.S. Department of Transportation¹¹ and the United Kingdom’s National Auditor’s Office.¹²

The implementation of mechanisms allowing negotiation could also be considered.

6. Developing a centralised database

PMI-Montréal recommends the implementation of a centralised database. The implementation of well-established methods by all public sector stakeholders would allow the development of a centralised database on lessons learnt during projects, cost and scheduling statistics, supplier performance, etc. Thanks to the information technology that is available today, such information could be shared readily with smaller municipalities who would otherwise not have access to this type of expertise.

7. Including project management experts in all infrastructure projects

PMI-Montréal believes all public decision-making bodies involved in the development of infrastructure projects should include management experts amongst their members.

Role recognition: Although Québec’s Professional Code does not recognize project management as a profession, there are a number of internationally-recognized professional accreditations, such as the PMP® certification (Project Management Professional). These certifications generally illustrate that:

¹¹ <http://www.fhwa.dot.gov/construction/contracts/pubs/framework/09.cfm>

¹² « Getting value for money from procurement: how auditors can help », Office of Government Commerce and National Audit Office, 2001

- the certified individual participates in an ongoing process of professional development in that particular area;
- the certified individual possesses either a core body of knowledge or a rigorous and recognized work method that has been confirmed through either examination or other validation methods;
- the certified individual is required to adhere to a code of conduct; and
- the certified individual demonstrates a certain level of commitment with regards to his activities in the subject area.

Exclusive role: In cases where all or part of a project’s management is outsourced, it would be preferable if only firms who are not involved with the execution of the project are selected.

It should probably be considered incompatible for a legal entity and any of its related entities to be commissioned for both the management of a project and either its design, execution or technical inspection.

Hence, it would be beneficial to the State to clearly define the roles and responsibilities of the project owner and those of the contractor.

Such clarifications could prevent some conflicts of interest when, for example, company “A” is designated as project manager, and is called upon to evaluate the relevance of a change request proposed by company “B”. In another project, company “B” would be responsible for the management, while company “A” would be the contractor. Would the knowledge that company “B” could one day find itself in the opposite position possibly influence company “A” in making its recommendation?

There are a sufficient number of well qualified companies in Québec specialised in construction project management which are unrelated to the construction companies involved in the execution of projects to meet this requirement.

Similar practices have produced tangible results, such as in the case of the Shönefeld Airport.¹³

Furthermore, in France, public project owners “have made it a habit to exclude from tenders groups which include an affiliate company who would be the project contractor from work tenders on that same project. Such conflicts of interest were becoming worrisome within the context of possible synergies.”¹⁴ Moreover, the competent project

¹³ “Case study: the implementation of an Integrity Pact in the Berlin Schönefeld Airport Project”, Transparency International – Germany

¹⁴ “De la maîtrise d’œuvre en France”, Conseil Général des Ponts et Chaussées, April 2003

manager's key role was the main focus of a recent study conducted by the Indian government on cost overruns and project extensions.¹⁵

8. Consider the implementation of a more rigorous and transparent project portfolio management process

To increase transparency and thus reduce the associated undue influence mechanisms, the Québec government should consider the implementation of a more rigorous and transparent project portfolio management process. A project portfolio that is made publicly accessible would include project health and progress, which would not only improve management accountability towards taxpayers but also improve portfolio stability.

Indeed, once the portfolio is made available to the public, it becomes less prone to the vagaries of unjustified changes or political interference.

Conclusion

PMI-Montréal commends the courage of the Québec government in demanding the implementation of this Commission and hopes to have contributed to the development of good management and good governance policies that will return Québec to its status as leader in project management and project portfolio management.

We are perfectly aware of the limits of our intervention and contribution in the fight against corruption and collusion. As external observers of the Commission, it seems clear to us that the majority of the cases which have made headlines could not have been prevented solely by the implementation of sound project management practices. No management method could ever entirely prevent such practices.

However, we believe that the techniques and tools promoted by organizations such as PMI® can greatly contribute to the sound management of public funds and more effective investments at various levels of government.

We believe that protecting public interest must also involve establishing and meeting performance and effectiveness objectives in the context of project management processes.

With 37 years of field experience, PMI-Montréal takes upon itself to assist the stakeholders in this new era of transparency and integrity which shall benefit the interests of all Québec citizens.

¹⁵ http://www.PMI.org.in/downloads/PMI_KPMG_2013.pdf



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