

Framework Agreements for IT Professional Services

(Service des technologies
de l'information)



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List of Acronyms

BDP	bureau de projets	PC	project controller
DPS	Division Performance TI et sourçage	STI	Service des technologies de l'information
EPM	Enterprise Project Management	TCWP	Three-year capital works program
IT	Information technology		

4.4. Framework Agreements for IT Professional Services (Service des technologies de l'information)

1. Background

The mission of the Service des technologies de l'information (STI) is to support the City's business units in the delivery of services to Montrealers by operating, maintaining and developing business solutions and technology infrastructure, by actually carrying out agreed-upon projects and by supporting technology users. To this end, the STI has an annual operating budget in the order of \$70M and a Three-year capital works program (TCWP) estimated at \$240M for the fiscal years 2015–2017. The STI's project portfolio for this period consists of 26 ongoing projects, including nine new priority projects in 2015.

The STI's project teams are made up of an internal workforce and external resources. These external back-up resources are used where needed to complete the projects and serve to supplement internal resources when more specialized technical skills are required.

Following public call for tenders No. 12-11916, the authorities approved five professional fee arrangements in 2012 pertaining to framework agreements for information technology (IT) back-up resources, according to five profile family groups. These three-year framework agreements ending in December 2015 were meant to enable the STI to meet the majority of its external resource requirements. The budget allocations authorized for these agreements total \$32.4M and are spread among the firms presented in Table 1.

Table 1 – Framework Agreements

Firm	Profile groups	Agreement (\$)
1. Cofomo	Project Management, Architecture, Computer Security	\$7,212,388
2. Systematix	System Development	\$8,039,960
3. CGI	Specialized Systems Development	\$2,460,833
4. DMR-Fujitsu	Oracle ERP Integrated Solutions Specialty	\$13,773,059
5. Dessau	Geomatics Specialty	\$948,164
Total		\$32,434,404

Note that Group 6 – Telecommunications Specialty included in this call for tenders was not part of a framework agreement, since the only bid received failed to obtain a passing score.

In response to events that occurred in 2008, the STI conducted an extensive review of its business practices. It developed a new strategy and orientations for the 2012 call for tenders process and identified certain vulnerabilities in its controls when using back-up resources. In doing so, it changed the management framework of its projects and programs. It put in place a team responsible for managing framework agreements, which reported to the Direction bureau de projets (BDP) up until the start of 2014. Following implementation of the STI's new management structure, this responsibility is now assumed by the Division Performance TI et sourcing (DPS), which reports directly to the director of the STI. At the time of our audit, this new division was in the process of being set up; therefore, training of the team had not been completed.

Against this backdrop and given the expectations expressed to us by the STI's director regarding our desired intervention on the contract management framework, we deemed it timely to audit the framework agreements for IT professional services.

2. Purpose and Scope of the Audit

The purpose of our audit was to determine whether the acquisition process and the administration of framework agreements for IT professional services are managed in accordance with the normative framework in force and with sound management principles.

More specifically, our audit consisted first in reviewing the main steps in the acquisition process, i.e., determining requirements, analyzing options, soliciting the market, launching a competitive bidding process, and selecting the firms. Second, we examined the controls applied to the use of framework agreements, in particular those related to the processes used to request external resources, control costs and the schedule and perform accountability reporting.

To this end, we gathered information during interviews with STI representatives and examined various documents, including those related to the process used in public call for tenders No.12-11916, with the City's repository for information technology and communications (ITC) project management, the *Guide d'encadrement administratif – Utilisation des ententes-cadres en ressources d'appoint informatiques* and the supporting billing data of the firms.

Our audit covered the period from January 1, 2013 to June 30, 2015, and the results are based on the state of affairs that prevailed at October 31, 2015, with the exception of the "Billing and Payment Authorization" component mentioned in section 4.2.3 of this report.

For this component, we carried out additional auditing procedures covering the entire period of the framework agreements ending on December 31, 2015. Accordingly, subsequent amendments or improvements that may have been made are not reflected in this report.

3. Main Findings

At the end of our audit, we reached the following key findings:

- **Acquisition Process**
 - Requirement planning was not substantiated by proper analysis of the overall work to be accomplished and the internal capacity of the STI in terms of skills and experience profiles;
 - Filling the requirements through framework agreements was not substantiated by a thorough analysis of the costs, risks, constraints and advantages of each of the alternatives;
 - Soliciting the market failed to achieve the objective of free and open competition, especially for Groups 3, 4, 5 and 6;
 - Analysis of the bids was not as thorough as expected, especially regarding the hourly rates termed “disproportionate” that were submitted by the prospective successful bidder of Groups 1, 3 and 5;
 - The chosen contracting method resulted in firms assuming only a small share of the risks associated with completing the mandates entrusted to them.

- **Administration of Framework Agreements**
 - Several external resources were used to perform strategic functions during pre-project phases, although under the STI's frameworks the use of these resources during these phases must be on an exceptional basis;
 - The STI's requests for external resources, made using the “mandate form”, were often generic, without establishing a link to the project and failing to specify deliverables or specific milestones, making it difficult to monitor the work being performed;
 - Only 8 of the 346 resources proposed in the bids tendered by the successful bidders provided services to the STI. Moreover, the contractual provisions made no mention of the terms regarding the successful bidder's obligation to provide the staff designated in its bid or their replacement. In addition, we found several mandate forms in which the required skills were below those set out in the profile defined in the framework agreements;

- Internal control gaps in the process of entering, approving, billing and authorizing payment of external resources' time carry the risk that the amounts billed do not faithfully represent the actual hours worked on the various mandates;
- Only one performance evaluation of a sample of external resources was done since the start of the framework agreements, while no evaluation of the firms was ever carried out;
- The monthly accountability reporting slated for the framework agreements was done only on request, and its contents did not enable monitoring of the financial progress of the agreements. In addition, the accountability report was not disseminated to all the appropriate management levels.

4. Audit Results

4.1. Acquisition Process

Our audit showed that, in general, the legal and regulatory provisions governing the awarding of contracts, such as the choice of method for soliciting the market, and the composition and neutrality of the selection committees, were observed. Nevertheless, several steps prior to the awarding of the framework agreements were not performed as thoroughly as expected. In the following sections, we present our findings and recommendations for opportunities for improvement that we have highlighted.

4.1.1. Requirement Determination

4.1.1.A. Findings

Under the City's procurement policy guidelines:

[TRANSLATION] "Determining the qualitative (technical), quantitative (consumption forecasts), temporal (deadlines), destination (near the place of use), and fair price (estimate) aspects of the requirements to be met is essential."¹

The team steering the call for tenders process, in collaboration with the persons responsible for project management, helped determine the requirements. Using current and future project plans, they estimated the number of hours required per profile. Based on the difference between this number of hours and the one obtained from the profiles already filled in-house, they determined the requirements to be met for the bureau de projets (BDP) to be able to

¹ Source: Procurement policy of the Ville de Montréal, adopted on October 27, 2011, Section 7.1 *[TRANSLATION]* "Requirement Planning and Determination."

complete the Three-year capital works program (TCWP) projects entrusted to it. The Service des technologies de l'information (STI) did not, however, have at its disposal a clear picture of the skills and experiences associated with these profiles.

No documentation could be provided to us to support the determination of the requirements to be met. We would also have expected to find an analysis of the STI's staff with regard to skills and experience profiles.

As part of its requirement planning, the STI decided on a strategy and orientations for the types of tasks that it hoped to entrust to external resources. According to the *Document d'orientations ressources d'appoint en informatique*, prepared by the STI for the purposes of the 2012 call for tenders, the guidelines for using back-up resources were to supplement its project teams with external resources that have specialized technical skills, to exclude strategic functions and to develop internal expertise in the areas of administration, portfolio management, project controller (PC) and project managers (except senior managers). Accordingly, several profiles that had been included in previous framework agreements, such as those of portfolio manager, strategic advisor and PC, were excluded in the 2012 call for tenders.

These STI orientations are in keeping with sound business practices when using external information technology (IT) resources. By entrusting strategic functions to internal resources rather than external ones, the STI ensures that it keeps control over its projects and maintains its expertise. Québec's Conseil du trésor Secretariat adds architectural consultant positions to this list of functions termed "strategic." By the very nature of their functions, architectural consultants can influence strategy, the technological orientations of projects and the acquisition of technology.

In a context of scarce resources and constantly evolving technology, the STI considers that the partial outsourcing of these strategic functions provides benefits. We agree that the expertise of third parties can be useful and that it is not always possible to perform all these functions in-house. Nevertheless, it is important for the STI to remain vigilant about the risks it could face in such a situation.

After determining its requirements, the STI created 35 skills profiles clustered into six groups for the purpose of issuing the call for tenders. As mentioned above, Group 6 was not given a mandate following the evaluation of the only bid received.

Estimation of Costs

According to the statements made by the STI representatives, the hourly rates used to estimate costs corresponded to the average market rates in effect at the time of preparing the call for tenders.

As with the estimated hours, no documentation could be provided to us to support the hourly rates used in the cost estimates. Reliable and available information is needed when evaluating bids in order to make informed decisions. Statistics on the hourly market rates for IT professionals should have been found in the STI file supporting the cost estimates.

4.1.1.B. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to:

- properly document its requirements and cost estimates in its future calls for tenders for IT professional services;
- update the strategic functions that should be kept in-house.

Business unit's response:

[TRANSLATION] This recommendation has already been partially applied in the new professional services call for tenders model for IT back-up resources, implemented in fall 2015.

1. *The model proposes a call for tenders approach in several lots to better meet requirements. The current method for estimating costs, based on similar profiles of two comparable framework agreements (2008–2012 and 2013–2015) will be enhanced based on new calls for tenders. A knowledge base will be put in place to better estimate costs. (Planned completion: June 2017)*
2. *A comprehensive skills profile development process was initiated to align the types of positions required with market practices and baselines, help assess the new types of positions on the market and identify what types of resources are or will be vital in the short and medium terms. Strategic functions that should be kept in-house will be updated as part of the skills development plan. (Planned completion: June 2017)*

4.1.2. Analysis of Options

4.1.2.A. Findings

According to the City's procurement policy guidelines: *[TRANSLATION]* "The determination of requirements must also consider the risks, constraints and unique characteristics of each acquisition project, and the possible options."² In this case, the possible options include hiring staff, training internal resources or using external resources. These options should be subjected to a comparative analysis to enable the municipal administration to make an informed decision.

The STI highly values the advantages of using external resources, such as the flexibility and ability to capitalize on specialized skills. Hiring staff and training its internal resources for certain resource profiles were only considered if positions were vacant. The STI assumed that the use of external resources was imposed on it due to successive workforce rationalization measures in effect at the City for several years. Moreover, the STI maintains that the non-competitive salaries offered by the City for this type of very specialized expertise causes problems when recruiting resources.

Despite these considerations, an analysis of options is incomplete if no formal comparison of each of them is made. We would have expected the STI to substantiate its decision to use external resources with a comparative analysis showing that this was the most beneficial option under the circumstances.

4.1.2.B. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to ensure, in future, that its decision to use external resources is substantiated beforehand by a comparative analysis of the options, taking into account the costs, timelines, risks and advantages of each option.

Business unit's response:

[TRANSLATION] The position on sourcing, adopted at the end of 2015, made it possible to put in place standardized mechanisms to monitor the market as well as to define a total cost of ownership analysis grid. This approach is at the pilot stage and will be deployed to all the business units of the Service des TI. **(Planned completion: December 2016)**

² Source: Procurement policy of the Ville de Montréal, adopted on October 27, 2011, Section 7.1 *[TRANSLATION]* "Requirement Planning and Determination."

4.1.3. Market Solicitation and Competitive Bidding

4.1.3.A. Findings

The purpose of market solicitation is to encourage competition between several businesses in order to obtain the desired service at the best possible price while complying with the regulatory framework.

Number of Compliant Bids

In May 2012, the authorities authorized the issuing of public call for tenders No. 12-11916, which was published in July. There were three addenda to this call for tenders. It should be noted that the second addendum resulted in substantial changes to the specifications, as well as changes to the detailed experience grid of the required resource profiles.

Of the 36 businesses that obtained the call for tenders documents, only 14 tendered a bid. Excluding Group 6³, 13 different firms tendered a bid, some for more than one group. In the end, the selection committee conducted a technical evaluation of 31 bids.

The follow-up done by the Service de l’approvisionnement shows that only 5 of the 22 firms that did not tender a bid returned the “Notice of Withdrawal” form. These firms mainly cited their inability to meet the requirements of the call for tenders or to guarantee the availability of resources for the full duration of the framework agreements.

Under these circumstances, we would have expected that additional steps would have been taken with the firms that did not return this form to better identify the reasons for these withdrawals and to make the necessary adjustments to future calls for tenders, where appropriate.

The results of the technical evaluation of the 31 bids received for the contracts awarded under this call for tenders are presented in Table 2.

³ We excluded Group 6 – Telecommunications Specialty from our analysis given that this market was not awarded a contract because the only bid received failed to achieve a passing score.

**Table 2 – Results of the Technical Evaluation
of the Bids Received**

Firm name / score obtained	Group 1	Group 2	Group 3	Group 4	Group 5	
1. Cofomo	71.5%	67.8%				
2. Systématix	73.8%	71.8%				
3. CGI	79.3%	77.4%	80.3%	78.5%		
4. Fujitsu	79.0%	78.5%		81.9%	80.6%	
5. Dessau					78.9%	
6. LGS	72.9%	75.9%				
7. Facilité	70.0%	65.5%	71.0%			
8. C.I.A.	69.3%	67.0%	66.0%	69.0%		
9. Groupe Conseil OSI	68.9%	63.3%	59.8%			
10. GFI Solutions d'affaires	64.5%	65.5%				
11. TechSolCom	54.1%	59.6%				
12. Telus		55.5%				
13. Pro2p				59.4%		
Compliant bids	6	4	2	2	2	16
Number of bids	10	11	4	4	2	31
% of compliant bids	60.0%	36.4%	50.0%	50.0%	100.0%	51.6%
Legend:						
Successful bidder's score						
Number of firms deemed compliant that attained a passing score of 70 points: 7						

The key findings of our analysis are as follows:

- Slightly more than 50% of the bids received obtained a score higher or equal to 70% and, accordingly, were deemed to be compliant;
- 7 of the 15 bids deemed to be non-compliant obtained a score that was close to the minimum threshold of 70%;
- Only 4 out of 11 (or 36.4%) bids tendered for Group 2 were deemed to be compliant;
- Few bidders tendered a bid for Groups 3, 4 or 5, and only 50% of these were deemed compliant for Groups 3 and 4. It should be noted that the value of the agreements for these two groups represents 50% of the total value of the agreements reached under this call for tenders.

According to the evaluation grid, the criteria pertaining to the firm's production capacity, experience and expertise, as well as the experience and expertise of its team, represent 80%

of the interim score. We found that smaller-sized firms scored lower on these criteria. It should be noted that the firms that were retained all have more than 100 employees. It is reasonable to assume that these criteria in fact favoured the largest firms to the detriment of the smallest.

The causes of the rejected bids' non-compliance were not analyzed and documented in the call for tenders file. We would have expected that this would have been done, in keeping with sound management principles and given the low rate of compliance of the bids received.

The low rate of response to the call for tenders, the explanations obtained from the notices of withdrawal, and the results of the technical evaluation of each bid suggest that the scale of the contracts is problematic and that this might have restricted competition.

In our opinion, the STI should look for solutions to encourage more firms to tender bids during future calls for tenders for professional services. For example, the grouping of profiles and the scope of the calls for tenders could be reviewed, or they could be adjusted so that there is more than one successful bidder per profile family group. By facilitating access by the smallest firms to City contracts, the STI ensures potential suppliers more equal opportunity while helping obtain the best price.

4.1.3.B. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to encourage greater competition during future calls for tenders for professional services.

Business unit's response:

[TRANSLATION] This recommendation has already been applied in the new professional services call for tenders model for IT back-up resources, used in fall 2015.

*The model proposes a call for tenders approach in several lots to encourage competition. It recommends that the market of potential suppliers in Québec be monitored and that the Service de l'approvisionnement send out a call for tenders issuance notice. It complies with the legislative and regulatory framework to which the City is subject. **(Completed)***

4.1.3.C. Recommendation

We recommend that the Service de l'approvisionnement, in conjunction with the Service des technologies de l'information:

- contact businesses that obtained the specifications and did not return a "Notice of Withdrawal" form to ascertain the reasons why they did not tender a bid;
- analyze the causes for rejecting bids at the end of their technical evaluation when the non-compliance rate exceeds a threshold deemed to be high;

with a view to making changes to future calls for tenders for IT professional services, where appropriate.

Business units' responses:

SERVICE DE L'APPROVISIONNEMENT

[TRANSLATION] Procurement agents compile the information on the Notice of Withdrawal from Bidding form. If they determine and are able to identify the suppliers who have not submitted this form duly filled out, they call them to ascertain the reasons for their withdrawal from bidding and enter these reasons in the GDD. Where appropriate, they enter, again in the GDD and the file, the actions to be taken for the next call for tenders.

The Service de l'approvisionnement will make sure to add to the current follow-up directory, a file that compiles the reasons why the bidders withdrew from the call for tenders process.

*The Division des pratiques et contrôles team will carry out periodic sampling (on a quarterly basis) to ensure that the file containing the reasons for withdrawal is added to the directory in which call for tenders documents are kept. **(Planned completion: June 2016)***

Auditor General's comments:

We note that the action plan does not address the second component of our recommendation concerning the analysis of the causes for rejecting bids following their technical evaluation when the non-compliance rate exceeds a threshold deemed to be high.

Given the cut-off time for production of our annual report, we were unable to obtain the amended action plan. We will pursue our efforts to do so at a later date.

SERVICE DES TECHNOLOGIES DE L'INFORMATION

[TRANSLATION] The STI will follow the instructions to be issued by the Service de l'approvisionnement based on their action plan.

Excerpt from the action plan of the Service de l'approvisionnement for 4.1.3.C:

“Procurement agents compile the information on the **Notice of Withdrawal from Bidding** form. If they determine and are able to identify the suppliers who have not submitted this form duly filled out, they call them to ascertain the reasons for their withdrawal from bidding and enter these reasons in the GDD. Where appropriate, they enter, again in the GDD and file, the actions to be taken for the next call for tenders.

The Service de l'approvisionnement will make sure to add to the current follow-up directory a file that compiles the reasons why the bidders withdrew from the call for tenders process.

The Division des pratiques et contrôles team will carry out periodic sampling (on a quarterly basis) to ensure that the file containing the reasons for withdrawal is added to the directory in which call for tenders documents are kept.” **(Planned completion: does not apply to the Service des TI)**

Hourly Rates Submitted

Table 3 presents the difference between the amounts of the bid tendered by the successful bidder and those of the in-house estimate for each group.

Table 3 – Difference between the Successful Bid and the Internal Estimate

Firm	Successful bid	Internal estimate	Difference (\$)	Difference %
1. Cofomo	\$7,212,388	\$9,581,886	(\$2,369,498)	-24.7%
2. Systematix	\$8,039,960	\$8,897,042	(\$857,082)	-9.6%
3. CGI	\$2,460,833	\$2,726,327	(\$265,494)	-9.7%
4. DMR- Fujitsu	\$13,773,059	\$13,436,557	\$336,502	+2.5%
5. Dessau	\$948,164	\$1,131,871	(\$183,707)	-16.2%

In accordance with the *By-Law Concerning the Urban Agglomeration Standing Committee on the Examination of Contracts*, the executive committee entrusted the Committee with the examination of the bids tendered by the prospective successful bidders in Groups 1 and 4. This examination was to be conducted for Group 1 because the price submitted was 20% higher than the internal estimate, while for Group 4, the amount of the bid exceeded \$10M.

Following its questioning on the differences between the internal estimates and the prices submitted, as well as on the extent of the changes introduced by the second addendum, the Committee ruled that the call for tenders process was compliant. It should be noted that the decision-making summary mentions that the differences between the internal estimates and the prices submitted by Groups 1 and 5 are explained basically by hourly rates submitted below the average market rates.

Indeed, our analysis revealed major differences between the estimated hourly rates and those submitted not only by the successful bidder and by the bidders in this group, but also by those in the other groups. In some cases, we noted that the rates submitted by the successful bidder were disproportionate (see Table 4 below).

Table 4 – Comparison of the Hourly Rates of the Successful Bidder with the City’s Estimate and the Average Hourly Rate Submitted by all the Compliant Bidders (by profile)

	Difference successful bidder/estimate	Difference successful bidder/average
Group 1 – Project Management – Architecture – Security		
• Project manager	-38.4%	-22.2%
• Change management specialist	-39.8%	-27.2%
• Data architect	-23.9%	-6.8%
• Technology architect	-20.2%	-4.8%
• Application architect	-16.6%	0.3%
• Data storage architect	-20.2%	-8.5%
• Computer security specialist	36.6%	0.0%
Group 2 – System Development		
• Business analyst	0.4%	-6.2%
• Oracle system analyst	-16.9%	-11.5%
• Oracle analyst-programmer	-18.3%	-9.3%
• Database administrator	5.4%	3.7%
• System analyst	-16.0%	-13.6%
• Quality assurance analyst	-8.3%	-4.3%
• Object-oriented programmer analyst	-13.7%	-10.5%
• Relational database administrator	2.2%	3.4%
• Web application system analyst	-4.0%	-5.1%
• Web application programmer analyst	-11.5%	-7.1%
Group 3 – Specialized System Development		
• System administrator (Z/OS)	-8.3%	11.1%
• System analyst (Natural/Adabas/IDMS, Cobol, [...])	-14.9%	-6.3%
• Programmer analyst (Natural/Adabas/IDMS, Cobol, [...])	-0.8%	3.0%
• Notes administrator	-14.8%	-11.8%
• Notes developer	-3.5%	1.2%
Group 4 –Oracle ERP Integrated Solutions		
• Integrated solutions specialist	1.2%	2.0%
• Business and application integrated solutions architect	-3.9%	-10.0%
• Integrated solutions system analyst	6.1%	-4.8%
• Oracle E-business Suite technology architect	-7.3%	3.2%
• Oracle E-business Suite database administrator	-8.7%	3.0%
• Oracle E-business Suite technical analyst	-2.4%	0.3%
• Oracle E-business Suite programmer analyst	42.3%	-3.8%
• Oracle E-business Suite system analyst	41.1%	1.9%
• Oracle E-business Suite systems administrator	4.3%	-2.0%
Group 5 – Geomatics		
• Geomatics architect	-35.2%	-22.7%
• Geomatics system analyst	-13.9%	-6.8%
• Geomatics programmer analyst	21.3%	2.3%

It should be noted that there are provisions in the call for tenders documents to enable the City to protect itself in such a situation and to encourage a transparent process. Under subsections 23.2 and 9.6 of section 1 "Instructions to Bidders," the City may request additional information on the prices submitted to better understand the offer, or the City may reject a bid whose unit rate is disproportionate, i.e., when it is 20% higher or lower than the average unit rates submitted by all the bidders.

Accordingly, we would have expected the STI to properly document the reasons for these disparities to establish whether the bid tendered by the prospective successful bidder was unbalanced⁴, and to take appropriate measures. We were unable to find any documentary evidence to this effect.

In our opinion, it is important for the STI to display more caution when alarm signals indicate that a bid may be unbalanced, as in the case of the project manager's profile, for which the hourly rate was abnormally low. To begin with, questions should be asked about the accuracy of the estimated quantities. If, after scrutiny, the estimated quantities are considered to be representative of the requirements, it should be determined whether awarding the contract under these conditions will have repercussions for the future contract management process. The STI is exposing itself to an increased risk that the firm will fail to supply the profile corresponding to the contractual requirements or that it will be unable to fulfill its requests for resources. Furthermore, we noted that the real hours for the project manager's profile represented only 21% of the estimated hours. In this regard, the STI told us that the firm was only able to partially meet its requests related to this profile.

4.1.3.D. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps, when evaluating future bids, to identify disproportionate hourly rates where these exist, to analyze their causes and to take the steps required under the circumstances.

Business unit's response:

[TRANSLATION] As part of implementing a knowledge base to estimate costs, a bid analysis and reporting procedure aimed at identifying variances will be put in place. (Planned completion: June 2017)

⁴ A tendered bid is considered to be unbalanced when a bidder submits an abnormally low price on an item it expects will have a lower consumption than forecasted, or vice versa.

Estimated Number of Hours and Actual Consumption

The following table presents the consumption of hours for each profile group/family compared with the number of hours forecasted in the specifications. The details of the hours consumed for Groups 3 and 5 were not presented due to their low relative significance.

Table 5 – Comparison between the Estimated Number of Hours and Actual Consumption (by profile)

	Contract hourly rates	Estimated hours 3 years	Actual hours 2.5 years	Difference between actual & estimated hours	Ratio of actual hours to estimated hours
Group 1 – Project Management – Architecture – Security					
· Project manager	\$85.00	10,290	2,146	(8,144)	21%
· Change management specialist	\$83.00	7,350	14,590	7,240	199%
· Data architect	\$105.00	9,922	–	(9,922)	0%
· Technology architect	\$110.00	9,922	3,033	(6,889)	31%
· Application architect	\$115.00	9,922	13,506	3,584	136%
· Data storage architect	\$110.00	9,922	–	(9,922)	0%
· Computer security specialist	\$115.00	3,675	–	(3,675)	0%
Total Group 1		61,003	33,275	(27,728)	55%
Group 2 – System Development					
· Business analyst	\$92.00	7,350	29,987	22,637	408%
· Oracle system analyst	\$81.00	8,820	6,732	(2,088)	76%
· Oracle programmer analyst	\$72.00	8,820	15,541	6,721	176%
· Database administrator	\$99.00	8,820	590	(8,230)	7%
· System analyst	\$77.00	8,820	3,218	(5,602)	36%
· Quality assurance analyst	\$84.00	6,615	179	(6,436)	3%
· Object-oriented programmer analyst	\$76.00	8,820	3,162	(5,658)	36%
· Relational database administrator	\$96.00	8,820	937	(7,883)	11%
· Web applications system analyst	\$88.00	8,085	238	(7,847)	3%
· Web applications programmer analyst	\$78.00	8,085	742	(7,343)	9%
Total Group 2		83,055	61,326	(21,729)	74%
Group 3 – Specialized Systems Development					
Total Group 3		25,725	2,406	(23,319)	9%
Group 4 – Oracle ERP Integrated Solutions					
· Integrated solutions specialist	\$139.50	13,230	9,964	(3,266)	75%
· Business and application integrated solutions architect	\$110.50	11,760	10,746	(1,014)	91%
· Integrated solutions system analyst	\$108.10	11,760	3,782	(7,978)	32%
· Oracle E-business Suite technology architect	\$127.90	11,760	9,275	(2,485)	79%
· E-business Suite database administrator	\$110.50	11,760	2,380	(9,380)	20%
· E-business Suite technical analyst	\$104.70	11,760	3,277	(8,483)	28%
· E-business Suite programmer analyst	\$87.20	11,760	–	(11,760)	0%
· E-business Suite system analyst	\$108.10	11,760	–	(11,760)	0%
· E-business systems administrator	\$104.70	11,760	277	(11,483)	2%
Total Group 4		107,310	39,701	(67,609)	37%
Group 5 – Geomatics					
Total Group 5		12,495	–	(12,495)	0%
Total of all groups		289,588	136,708	(152,880)	53%

Six months before the end of the agreements, scheduled to last 36 months, we found that less than 50% of the hours originally estimated in the specifications had been used. Moreover, we noted that several of the profiles provided under these agreements were not used at all.

In our opinion, this situation indicates poor requirement planning on the part of the STI which may have restricted competition. It is reasonable to assume that firms that did not tender a bid because they felt unable to meet the City's request could have done so if these requirements had been better planned.

The extent of the differences found between the forecasted hours and actual hours raises questions about the real ability of the STI to adequately plan its external resource requirements over a three-year span. Because there is no firm agreement on the part of the municipal administration regarding completion of the TCWP, the STI is particularly exposed to the risks of changes in the priorities of IT projects. As well, major deficiencies in IT governance⁵, such as the lack of strategic orientations for IT and of a master plan for the STI, are also an impediment to the proper planning of its requirements.

It is no doubt reasonable to expect that discrepancies will arise in planned requirements over a three-year period, but certainly not of the extent of those mentioned above. In our opinion, such a situation runs the risk of undermining the interest of potential firms in bidding on future calls for tenders by the STI, especially when the contract terms do not include any guarantee as to the minimum threshold of hours or price readjustment clauses in the event that the actual number of hours is lower or higher than a given percentage of anticipated number of hours.

This situation, combined with our findings regarding the "Choice of Contracting Method" and the "Resource Selection and Confirmation of the Mandate" in sections 4.1.4 and 4.2.2 of this report, leads us to question whether the framework agreements in their current form are the most appropriate solution under the circumstances.

4.1.3.E. Recommendation

We recommend that the Service des technologies de l'information review the relevance of the framework agreement formula currently used for professional services so as to more closely align its requirement planning with its actual needs and encourage more potential firms to tender bids for its future call for tenders.

⁵ 2014 Annual Report of the Auditor General of the Ville de Montréal, chapter 4.5 "Information Technology Governance."

Business unit's response:

[TRANSLATION] The analysis was done in summer 2015 and the best option to meet our back-up resource requirements for projects (other than major ones or those within a program) is the formula for framework agreements by lots, given the scarce number of specialized resources available within the Service des TI.

*Since fall 2015, calls for tenders for back-up resources by program or major IT projects have been issued (Bureau de demain, Gestion des actifs municipaux, Approvisionnement III). The market of potential suppliers in Québec has been monitored and the Service de l'approvisionnement has sent a call for tenders issuance notice to generate greater interest among potential firms. **(Completed)***

4.1.4. Choice of Contracting Method

4.1.4.A. Findings

The City chose compensation based on an hourly rate for its framework agreements for IT professional services. Using this type of agreement offers the advantage of reducing administrative delays since the process for awarding contracts does not have to be re-launched and approval from the authorities does not need to be obtained for each of the mandates entrusted. This is generally the preferred method of compensation when work planning is not specific.

Nevertheless, the choice of this contracting method results in firms assuming only a small share of the risks associated with completion of the mandates entrusted to them. In fact, external resources have no obligations regarding the quality of the deliverables or meeting the mandate's scheduled deadlines. Penalties for non-compliance are difficult to apply in such a contractual relationship. Ultimately, the firms' obligations can be summed up as providing resources according to the City's requests and agreed-upon hourly rates.

We understand that compensation based on an hourly rate allows for greater flexibility and that a fixed-price contract does not lend itself to all types of projects. However, given the scope of its projects and the experience it has acquired in this area, the STI should consider alternative solutions to transfer a greater share of the risks to the firms.

Allotment could be one possibility. This process makes it possible to maintain management over IT projects, segment them into various smaller-sized markets and better divide the risks associated with carrying out the contracts between the City and its suppliers. However, it requires solid planning of underlying tasks and deliverables.

4.1.4.B. Recommendation

We recommend that the Service des technologies de l'information, as a corollary to the previous recommendation, examine the relevance of making greater use of contracting methods under which firms would assume a greater share of the risks in carrying out professional services contracts.

Business unit's response:

[TRANSLATION] A new sourcing strategy was developed and implemented in 2015. It recommends various types of sourcing, including a model in which firms assume a greater share of responsibilities, e.g., professional integrator services for the Bureau de demain project. (Completed)

4.2. Administration of Framework Agreements

Following the awarding of framework agreements, the STI was to put in place sound management practices so that the agreements be used in accordance with the contractual terms and administrative frameworks.

4.2.1. Sharing of Roles and Responsibilities

4.2.1.A. Findings

The use of framework agreements requires the involvement of various internal stakeholders (project managers, project and portfolio controllers, Division Performance TI et sourcing [DPS] advisor) and external stakeholders (firms and consultants). Managing framework agreements thus requires that their roles and responsibilities be well understood and defined.

The *Guide d'encadrement administratif – Utilisation des ententes-cadres en ressources d'appoint informatiques* specifies the roles and responsibilities of stakeholders when using framework agreements for IT back-up resources.

Based on interviews and the examination of documents, our audit found that, in general, the roles and responsibilities of stakeholders were clearly defined, communicated and assumed.

4.2.2. External Resource Request Process

4.2.2.A. Findings

The mandate request process for an external resource under the framework agreement makes it possible for the STI to obtain the skills that meet its requirements and to control the use of funds provided for in these agreements. This process consists of the following steps: stating the requirement, analyzing compliance, selecting the resource and confirming the mandate.

Statement of Requirement and Compliance Analysis

Before resorting to framework agreements, it is important to check if internal resources are available. The STI has no time management and planning tool to quickly get an overall picture of its workforce assignments.

While the STI is preparing to integrate all workforce planning into the Microsoft Office Enterprise Project Management (EPM) tool, the absence of updated overall planning means that it is currently unable to ensure optimal use of its internal resources.

In our opinion, to ensure optimal use of the STI's resources, initiating a mandate request process for an external resource should be conditional on a prior check of the availability of internal resources.

According to the STI's "mandate request" process, external personnel should only be used on an exceptional basis during pre-project phases. This business practice is intrinsically a sound one. These phases include, in particular, the design and approval of the project plan and budget solution. We were astounded to find that several external resources filling strategic functions were involved during these phases.

These external resources even took part in preparing a business file and an information request to potential suppliers. Some of these resources will also be contributing shortly to preparing the resulting call for tenders. This situation is not without risks and requires diligence and close monitoring to prevent a conflict of interest.

For this reason, provisions were taken by the STI with the firm employing these resources to protect itself from this risk of a conflict of interest. These provisions, however, were not formally documented. Furthermore, it should be noted that these same resources did not sign a confidentiality agreement with the City even though they had access or had had access to sensitive and confidential information.

This type of situation places the City in a vulnerable position and can compromise the integrity of its future call for tenders process. In such cases, not only should a confidentiality agreement be signed but steps should also be taken to keep track of the persons and firms that took part in these pre-project phases.

The external resource mandate request is activated when a mandate form is filled out. This mandate form is an important element in the framework agreement management process because it serves to formalize the STI's expectations with regard to the desired profile, required qualifications, description of the mandate, deliverables, work schedule and forecasted hours.

Before being sent to the firm, the mandate form must undergo a compliance analysis. To be granted a notice of compliance, the request must meet a requirement set out in the project plan, the scope of the work required must correspond to the desired profile, and both the project budget and financial limitations of the agreement must allow the expense to be incurred.

We found that the description of the mandate was generally not filled out in a consistent manner. It often lacked clarity, had few deliverables and specific milestones, and was often limited to a list of tasks to be completed. Descriptions more or less repeated the terms used in Appendix A of the framework agreements to describe the activities of the desired profile, without establishing a link with the project.

Without a clear definition of activities and deliverables to support the description of the work to be done, it is difficult for the managers accountable for the mandate to ensure that the work was actually completed and that the services were provided in accordance with the parameters of the mandate. For this reason, special attention must be paid to the description of the mandate when analyzing compliance.

We also found that the current procedure makes no provision for the mandate forms to be signed by representatives of the STI and the firm, as well as the resource provided by the latter. It appears vital to us that the mandate forms be signed before work begins to formalize the agreement between the parties and to facilitate the resolution of possible disputes that could arise during completion of the mandate.

Finally, we found that eight external resources have been assigned full-time to the City's mandates since the entry into effect of the framework agreements in January 2013. One of these resources had even been assigned full-time for five years prior to January 2013.

This situation is contrary to the spirit of the framework agreements and the reason for approval by the authorities in that they are aimed at retaining back-up services. It is our opinion that the tasks performed by these external resources should have been entrusted to internal resources, both for cost reasons and the maintenance of expertise.

Resource Selection and Mandate Confirmation

It should be recalled that one of the evaluation criteria for bids, which counts for 20% of the interim mark, deals essentially with the competency and availability of the account manager and his or her team. Another criterion, this time dealing with the production capacity of the firm and counting for 30% of the interim mark, serves to evaluate, among other things, the proposed resources' compliance with the expertise being sought and the succession plan in place in the event that a resource assigned to the City mandate is no longer available.

We found that only 8 of the 346 resources proposed in the bids tendered by the successful bidders provided services to STI. In all other cases, the resources proposed in the bids were not those that appeared on the invoices we examined. Substituting resources is the norm rather than the exception. Furthermore, when a resource request is made, no parallel is drawn with the resources presented by the firm in its bid.

Aside from the succession plan mentioned above, the contractual provisions make no mention of the terms of the bidder's obligation to provide the staff designated in its bid or their replacement. This situation carries the risk that the firms replaced the persons proposed in their bid with less experienced resources during completion of the mandates. The STI may therefore not have received fair value for the services rendered in exchange for the dollars spent. In our opinion, it is important to mitigate these risks in the future by putting in place measures to ensure that, when a proposed resource is replaced by another, the latter meets the skills and expertise requirements in the agreement.

We also found several mandate forms in which the required qualifications were less than those stipulated for the profile defined in the framework agreement. In these cases, it is our opinion that the STI did not receive fair value for the services rendered in exchange for the dollars spent. It is important in future for the STI to ensure that the skills and experience indicated in the mandate file are equivalent to those stated in the bid evaluation criteria.

We also found that the profile of some of the resources that were selected failed to meet the requirements of the framework agreements, particularly in terms of the level of education or number of years required. Although not provided for in the contractual provisions, it would appear that the STI factored in academic equivalency—years of experience when considering

these cases. This is a recognized practice that should be taken into account when preparing future calls for tenders, at least in profiles other than those of exclusive professions.

Finally, we found that some profiles of the framework agreements were used for purposes other than those intended. The *Business Analyst* and *Project Manager* profiles were used to recruit resources that actually performed the duties of *Technician* and *PC*, respectively. This situation is unacceptable, and the STI should have concluded a contractual agreement separate from the framework agreements for these cases.

Confidentiality Agreement

The confidentiality agreement specifies the terms and conditions that must be met by the external resource that will have access to confidential information as part of his or her mandate. In its current form, the agreement does not address important aspects such as the duration of the obligation and the contractual link between the external resource and the firm. In addition, it only deals with possible legal sanctions. In our opinion, the current content of the confidentiality agreement should be reviewed to better protect the City from any risk of disclosure and use of privileged information obtained as part of the work carried out by external resources.

Under the provisions of the contract, the successful bidder's staff must sign a confidentiality clause regarding the handling of information obtained within the framework of the contract.⁶ We found, however, that this obligation had not been met in some of the mandates we analyzed. This situation represents a risk for the City and makes it more susceptible to leaks of confidential information.

⁶ In the case of resources assigned to public safety contracts, a background check is required and conducted by the SPVM.

4.2.2.B. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to improve the external resource request process so that:

- the initiation of the request is conditional on a prior check of the availability of its internal resources;
- the use of external resources that are called on to perform strategic functions is structured appropriately, more specifically those assigned on an exceptional basis to the pre-project phases;
- the mandate forms systematically specify the deliverables and activities to be completed in connection with the project, as well as the work schedule and forecasted hours, and that they be signed by the stakeholders;
- the resources proposed by the firm meet the requirements of the framework agreements in regard to skills and experience, more specifically the substitution of a resource proposed in their bid;
- the content of the confidentiality agreement is revised;
- the confidentiality agreement is signed by the external resources prior to their being assigned a mandate.

Business unit's response:

[TRANSLATION] Following the adoption of positions on portfolio management and sourcing, several BDP projects were started, including one dealing with capacity management and resource availability. Another project deals with project methodology and will cover management models and procedures, such as mandate forms. (Planned completion: June 2017)

Guidelines covering professional services and contractual practices for the life cycle of a project (including the pre-project phases) have been documented and are in the process of being deployed. They are being monitored and continually improved.

In 2015, the DPS was created to ensure independent monitoring of contracting practices at the Service des TI. It is currently putting in place supplier evaluation practices (following the adoption of Bill 8).

A review of the confidentiality agreement model is planned, in collaboration with the Service des affaires juridiques. (Planned completion: December 2016)

4.2.2.C. Recommendation

We recommend that the Service des technologies de l'information include provisions in its future calls for tenders for professional services outlining the obligations of the successful bidder with regard to the availability of the staff designated in its bid and their replacement.

Business unit's response:

[TRANSLATION] This recommendation has already been applied in the new professional services call for tenders model for IT back-up resources, used in fall 2015.

*An elimination criterion was defined for the IT back-up resources call for tenders that covers all the requirements of the Service des TI, making it possible to validate the firm's past resource placement capacity. **(Completed)***

4.2.2.D. Recommendation

We recommend that the Service des technologies de l'information examine the relevance of including in its future calls for tenders for professional services an academic equivalency–years of experience form for the purposes of assessing the proposed resources.

Business unit's response:

*[TRANSLATION] This recommendation has already been applied in the new professional services call for tenders model for IT back-up resources, used in fall 2015 in the bid evaluation grid. **(Completed)***

4.2.3. Cost and Schedule Control

4.2.3.A. Findings

Monitoring of completion of the mandate begins as soon as the resource is chosen by the STI. This includes several activities, such as the purchase request, commitment of funds, tracking of purchase orders, time entry and approval, billing, payment authorization and contract renewal, where appropriate.

Purchase Request and Order Form

Since the repatriation of the financial and procurement advisor positions to their respective departments in January 2014, a purchase request is prepared to set aside the required funds

based on the mandate. This responsibility was entrusted at the time to the portfolio PC for what should have been a temporary period.

At the time of our audit, however, the portfolio PC was still responsible for these requests, in addition to preparing budget transfers to the project. In our opinion, entrusting such responsibilities to the portfolio PC is not an appropriate use of his position. The time spent on these administrative tasks proportionally reduces his availability to exercise control of the projects.

Once approved by the STI manager, the information contained in the purchase request, along with the attached documents, is checked by the Service de l'approvisionnement, which then generates a purchase order. Before being released, the purchase order is reviewed by the Service des finances to ensure that it complies with the fund limitations of the framework agreement. To carry out this review, the Service des finances needs reliable information.

The file provided by the STI for this purpose does not faithfully reflect the updated balances of the purchase orders associated with each of the mandates related to the framework agreement. This situation is explained, on the one hand, by the failure to update the purchase order file and, on the other hand, by the lack of any monitoring that would enable the authorized amounts of these mandates to be reconciled with the corresponding billing. The DPS considers that the situation should be rectified once it is able to fill all its positions.

Given this context, it is our opinion that the intervention by the Service des finances is a futile exercise. These shortcomings prevent the STI from conducting proper financial monitoring of the framework agreements.

Time Entry and Approval

The EPM tool used by the STI should enable it to plan activities, manage resources and monitor the progress and costs associated with its projects. For each stage of a project, tasks and deliverables are assigned to resources.

Under subsection 11.1 of the specifications, external resources must record the time they spend on the tasks of the mandate entrusted to them by their project manager in the EPM. Each week, the latter must validate the hours that external resources have charged to the project, and the project leader must approve them so that an automated timesheet can be extracted from them. The timesheet must be signed by the external resource and the manager responsible for the project. The latter's signature serves as evidence of his or her approval of receipt of these services.

Some project teams prefer to use a manual timesheet rather than the one generated automatically by the system, given that some managers want details that do not appear on the automated timesheet. Using a manual timesheet, in our opinion, is unacceptable and entails a greater risk of error or falsification. If deemed appropriate, the configuration of the EPM should be reviewed to ensure that the automatically generated timesheet meets the needs of all users.

While using the automatically generated timesheet helps better manage these risks, we identified significant shortcomings in the EPM's capabilities, as well as in the project teams' different ways of working. In summary, the terms for delegating access can result in non-compliance with the separation of incompatible functions. Since digital tracking of the work assigned is only visible to some EPM users, the DPS, which is responsible for checking the billing, is not able to detect this situation. Furthermore, the authorized timesheets can be amended later due to the choice made by the STI when setting up the initial parameters in the EPM. Finally, the "Select All" function allows mass verification of all the times charges for a week for all the resources assigned to a project.

In our opinion, these shortcomings expose the STI to the risk that the timesheets do not faithfully represent the actual time worked by the external resources on the various mandates.

Billing and Payment Authorization

According to the contract terms, the firm must send a monthly invoice to the DPS for the hours worked by the external resources on the various mandates during the reference period. The billing must of course be substantiated by timesheets signed by the external resource and duly authorized by the designated STI representative.

Before authorizing payment of an invoice, the DPS ensures that it complies with the hourly rates and profiles, matches the number of hours billed with the timesheets, and then checks the calculations.

Our audit found no errors in the sample of invoices that we examined. However, we found no evidence that the invoices had been checked by the DPS. In our opinion, it is important for the DPS to maintain a record of these validations to confirm that the checkpoints have been effectively administered.

We did find, however, that several timesheets in our sample did not bear the signature of the designated STI representative. We also found more than 200 timesheets whose payment was authorized without the timesheet being signed by the external resource. In at least two

cases, we even found that the external resource had not signed any of his or her timesheets substantiating the invoices submitted in his or her name by the firm for the entire period of his or her assignment to the City. These situations obviously raise questions about the validity of the hours billed.

We also noted discrepancies between the number of hours billed overall for some external resources and the hours charged in the EPM. These discrepancies can be explained on one hand by the fact that the framework agreements were used to meet the requirements of a business unit other than the STI. The decision-making file, however, clearly stipulated that these agreements were intended for the exclusive use of the STI. As well, the resolutions of the City and agglomeration councils ratifying these agreements stipulate that *[TRANSLATION]* “their purpose is to support the completion of various STI projects.” Appropriations authorized by the authorities were thus used for purposes other than the one intended without any prior authorization or accountability.

It would also appear that, contrary to the contractual provisions and frameworks of the STI, some resources were not required to record their hours worked in the EPM during 2013 and 2014. Thus the number of hours billed for several resources was higher than the number of hours charged in the EPM. This situation amplifies the previously raised concern regarding the authenticity of the hours billed and calls into question the reliability of the data in the EPM to monitor projects. Even if justified, the reasons for these discrepancies should have led the STI to take immediate corrective action once detected and to properly document them.

Finally, under the contractual provisions, the firm's invoice must show how the consumption of hours was monitored as part of the mandate. This obligation was in fact reiterated to the firm during the start-up meeting. Yet none of the invoices we analyzed contained this information. It becomes difficult, therefore, to reconcile the increased consumption of hours with the forecast established when making the mandate request. As well, monitoring consumption on the mandate forms and invoices would facilitate controls should the mandate be renewed.

Mandate Renewal

Under the STI's frameworks, an external resource's mandate is renewed for one of the following situations:

- The period of the mandate spans two fiscal years;
- The initial mandate has been completed. The STI wishes to entrust subsequent tasks of the project to the same resource;

- The mandate is approved for a fixed period for budgetary management purposes (e.g., every four months).

The same steps as those in the mandate request process must be completed, with the exception of the resource selection step (statement of the requirement, compliance analysis and mandate confirmation).

We noted that some renewals had been authorized despite the absence of the required documents, such as the budget plan,. Moreover, in most of the cases we analyzed, the renewal was not sufficiently justified. The work description from the initial mandate request was often simply repeated. As well, the mandate form supporting the renewal made no mention of the status of the initial mandate regarding the work completed or compliance with timelines.

When renewing a mandate, the risk is that it serves as a pretext to cover up cost overruns in the initial planning or poor performance. If the cost overrun does not affect the overall cost of the project, the project manager has the leeway to revise the plan or to use the contingency funds provided for the project. The reasons for renewing a mandate must therefore be clearly documented to facilitate monitoring and accountability.

4.2.3.B. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to ensure that:

- **the financial and procurement tasks related to professional services that are currently assigned to the portfolio project controller be assumed from now on by the staff of the Division performance TI et sourcing;**
- **the purchase order tracking file be updated periodically and the authorized amounts for these orders be reconciled with the corresponding billing amounts;**
- **the timesheet automatically generated by the system be systematically used by all project teams and, if deemed appropriate, the configuration of the timesheet be reviewed to meet the needs of all users;**
- **the system's functionality configuration affecting the efficiency of the internal control for time entry and approval be reviewed;**
- **the billing of firms be substantiated with, among other things, timesheets duly signed by the external resource and authorized by the designated representative of the Service des technologies de l'information;**
- **contract renewals be adequately substantiated.**

Business unit's response:

[TRANSLATION] This activity began in 2015.

It is agreed that new mandate requests related to the awarding of new framework agreements will be made using a purchase request, followed by a purchase order, made out by the financial and material resources management agent assigned to the DPS or any other person designated to do so.

*A new format for monitoring framework agreements has in development since 2015. **(Planned completion: June 2016)***

A project to upgrade the current timesheet management system is being analyzed. A business analysis of several elements, such as electronic approval, generation of timesheets, links with project management and billing, is currently under way.

*These various elements will then be configured to comply with the recommendations regarding consultants' timesheets. **(Planned completion: September 2017)***

*Following the adoption of positions on portfolio management and sourcing, several BDP projects were started, including one dealing with capacity management and resource availability. Another project deals with project methodology and will cover management models and procedures, such as mandate forms. **(Planned completion: June 2017)***

4.2.4. Performance Evaluation of the Firm and External Resource

4.2.4.A. Findings

The contractual provisions, as well as the *Guide d'encadrement administratif – Utilisation des ententes-cadres en ressources d'appoint informatiques*, stipulate that quarterly meetings must be held with the firms.

We found, however, that there were fewer meetings held than stipulated and that minutes were not prepared for all of them. In our opinion, it is important to systematically produce minutes for all these meetings in order to communicate the items discussed and to ensure follow-up of the decisions made.

While the contractual terms do not provide for the performance evaluation of the firm and its resources, this kind of evaluation should nevertheless be done at regular intervals, whenever the objectives of each phase are met, and systematically at the end of each mandate.

We found that only one evaluation of a sample of external resources has been done since the start of the framework agreements, while none was ever done for the firms. Such evaluations should be carried out on a regular basis, and a register of these evaluations should be maintained to avoid having a resource who failed to meet expectations be assigned to another project. The register could also be useful in evaluating firms and external resources during a future call for tenders.

The contractual provisions also provide the City with the option of cancelling an external resource's mandate. This could happen if the mandated resource fails to meet the project manager's expectations and the latter decides to seek out the services of another resource to complete the mandate or simply terminate the mandate.

Since 2013, the STI has cancelled mandates on a few occasions due to unsatisfactory performance of services by the selected resources. Based on our audit, it is our opinion that the provisions set out for this purpose have been met.

4.2.4.B. Recommendation

We recommend that the Service des technologies de l'information ensure that scheduled management meetings with the firms are held and that minutes of these meetings are prepared.

Business unit's response:

[TRANSLATION] Depending on the scope of the agreement, a governance meeting will be held every 6 to 12 months as of the awarding of the contract. These meetings will be documented with minutes. (Planned completion: December 2016)

4.2.4.C. Recommendation

We recommend that the Service des technologies de l'information take the necessary steps to ensure that external resources and firms are periodically evaluated.

Business unit's response:

[TRANSLATION] In 2015, the DPS was created to ensure independent monitoring of contracting practices at the Service des TI. In 2016, it will put in place a firm evaluation method. (Planned completion: December 2016)

4.2.5. Accountability Mechanism for Framework Agreements

4.2.5.A. Findings

According to the *Guide d'encadrement administratif – Utilisation des ententes-cadres en ressources d'appoint informatiques*, a report must be submitted monthly to STI management. This report must present the consumption data of the framework agreements, in hours and costs by firm and profile.

We found, however, that this report was actually only produced on request. Furthermore, it is our opinion that the stipulated contents of the report only allow for monitoring of the financial progress of the agreements. The contents of the report should be modified to also provide information by project in order to assess the extent to which external resources are used and thus promote better risk management, especially in projects where the use of these resources is high. Finally, this report should be disseminated to the project steering committees, as well as the IT sectoral committee.

4.2.5.B. Recommendation

We recommend that the Service des technologies de l'information modify the accountability report for framework agreements to include information “by project” and to disseminate it monthly to the project steering committees and the IT sectoral committee, among others.

Business unit's response:

[TRANSLATION] The DPS will provide a monthly summary of expenses for each framework agreement. This summary will contain, among other things, data displayed by project. This summary will be sent to the director of the STI and the director of the BDP, who will communicate it to City management. (Planned completion: December 2016)

5. Conclusion

In light of our audit, we can conclude that, in general, the provisions of the *Cities and Towns Act* and the City's frameworks for awarding contracts were followed; however, we should stress that compliance with these provisions and frameworks does not mean that sound management principles regarding the acquisition process were applied.

We identified significant shortcomings in several stages of this process prior to the awarding of the contracts. In particular, we noted that:

- the requirement determination and analysis of alternatives were not sufficiently substantiated;
- market solicitation failed to achieve the objective of free and open competition;
- analysis of the bids was not done with the expected thoroughness;
- the chosen contractual method, based on an hourly rate, resulted in firms assuming only a small share of the risks associated with completing the mandates entrusted to them.

These shortcomings, combined with the significant differences found between the forecasted hours and actual hours worked raise questions about the relevance of the framework agreements in their current form. It is difficult for the Service des technologies de l'information (STI) to properly plan its external resource requirements over a three-year period given that there is no firm commitment on the part of the municipal administration regarding completion of the projects included in the Three-year capital works program (TCWP), and given the major shortcomings in information technology (IT) governance,⁷ such as the absence of strategic information technology (IT) orientations and a master plan for the STI. In addition, the reasons behind the low rate of response to the call for tenders and the results of the technical evaluation of the bids suggest that the scope of the framework agreements is problematic.

Accordingly, it is our opinion that the STI must review the current framework agreement formula with a view to better aligning its requirement planning with its actual needs, having firms assume a greater share of the risks associated with completing the mandates, and encouraging greater competition during future calls for tenders for professional services.

We also found very worrisome deficiencies in the administration of the framework agreements, in particular:

- Several external resources were used to fill strategic functions during the pre-project completion phases, even though the use of these resources in these phases must be exceptional according to the STI's frameworks. As well, these same resources did not sign a confidentiality agreement with the City, thus placing it in a vulnerable position in regard to the integrity of its future call for tenders process;
- The STI's requests for external resources, made through the mandate form, were often generic, not establishing any link with the project and not specifying deliverables and specific milestones, making it difficult to effectively monitor the work completed;
- Only 8 of the 346 resources proposed in the bids tendered by the successful bidders provided services to the STI. Moreover, the contractual provisions made no mention of

⁷ 2014 Annual Report of the Auditor General of the Ville de Montréal, chapter 4.5 "Information Technology Governance."

the terms of the successful bidder's obligation to provide the staff designated in its bid or their replacement. It is therefore highly plausible that the firms replaced the persons proposed in their bids with less experienced resources when completing the mandates. It should be noted in this regard that we identified several mandate forms in which the required qualifications were lower than those stipulated for the profile defined in the framework agreements;

- Internal control issues in the entry, approval, billing and payment authorization process for the external resources' time lead to the risk that the amounts billed do not faithfully represent the actual hours worked on the various mandates. Among these issues is the fact that several timesheets in our initial sample did not bear the approval of the designated STI representative, while more than 200 timesheets had been authorized by the latter without having been signed by the external resource. Despite the additional auditing that we did following this finding, we were unable to conclude that billing by these firms did not contain hours that were not factual;
- Only one evaluation of a sample of external resources has been done since the start of the framework agreements, while no evaluation has been done for the firms;
- Finally, the planned monthly accountability reporting on the framework agreements was only done on request, and its contents only allowed for monitoring of the financial progress of the agreements. In addition, the accountability report was not disseminated to all the appropriate management levels.

Accordingly, we are of the opinion that the STI should take the necessary steps to improve controls surrounding the administration of its framework agreements for professional services.