Project Portfolio Management
Montreal Approach

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ABSTRACT

This paper describes how Project Portfolio Management (PPM) is related to strategic planning and the capacity to finance projects. When financial and human resources are limited and strategic objectives are ambitious, prioritizing projects or programs can be quite challenging. In 2005, STM implemented a PPM process to address this issue. Initially applied to only a few projects, it currently includes all STM projects, representing a total of CDN$11.5 billion in investments over a ten year period. This paper will focus on PPM as implemented by STM, along with the success factors used to ensure this organizational shift. PPM cannot live by itself; it needs to be interrelated with other processes in the organization such as strategic planning and financial processes.

CONTEXT

In 2005, the United Nations Climate Change Conference held in Montreal supported the idea that public transit organizations are in a position to contribute to sustainable economic development and ensure a better future for the community. In the meantime, the Quebec government decided to provide a new financial framework for public transit, and programs have been implemented to promote the development of public transit. It was STM's turning point in its role as a community leader in Montreal.

PROJECT PORTFOLIO MANAGEMENT IMPLEMENTATION AT STM

Following a performance improvement exercise, STM decided to implement a Project Portfolio Management (PPM) approach in 2005. At that time, the number of ongoing projects was increasing, and the pressure on operations (maintenance and engineering) was a problem. The Project Management Institute (PMI) has defined portfolio management as "the centralized management of one or more portfolios, which includes identifying, prioritizing, authorizing, managing, and controlling projects, programs, and other related work, to achieve specific strategic business objectives." A portfolio reflects investments made or planned by an organization, which are aligned with the organization's strategic goals and objectives. According to the UK Office of Government (OGC), "Portfolio management provides senior management with reliable evidence enabling better and more informed decisions about:

- When to invest in new initiatives;
- Whether or not to continue to invest in existing initiatives;
- How to ensure efficient and effective delivery;
- How to maximize the return on investment."

For STM's senior management, the implementation of a portfolio approach was a good solution to resolve the issue related to the negative impact projects had on operations. An evolutionary (multi-phased) approach was adopted to implement portfolio management at STM, starting with areas with the greatest needs and improving over time with experience.

First phase: from 2005 to 2010

Inspired by industry best practices, a working group of directors from different sectors were responsible for developing an approach tailored to STM's needs. In 2005, the practice was applied only to major projects (complete cost higher than $10M). In 2007, PPM was extended to all projects to help achieve the goals of the 2007-2011 business plan. The six priorities of this plan were:

- Corporate growth/marketing;
- Listening to clients;

- Mobilization;
- Developing business;
- Improving performance;
- Integrating sustainable development.

A methodology was developed to support portfolio management. The portfolio was split into four categories: Metro, Bus, Infrastructure and Administration. One set of evaluation criteria was developed for all portfolio categories. All projects followed a three-step process: alignment, balanced choices and portfolio monitoring. The Executive Committee (STM senior managers) was responsible for authorizing project scope and the Board of Directors for authorizing project financing. A Portfolio Management Guide, aligned with major projects, was developed.

At this point, the portfolio categories made it easier to secure the commitment of each sector because they were tailored to the organizational structure. On the other hand, it was very difficult to compare the value of the projects with each other since they were not pursuing the same objectives (e.g. the "Metro Extension" project to expand service vs. the "New Information System" project to improve performance). It was the starting point for a new phase.

Second phase: from 2010 to now

In 2010, an outside firm was commissioned to conduct an audit to improve and optimize the existing PPM methodology. Four main areas of improvement were identified:

- Alignment with strategic planning;
- Portfolio management support structure;
- Alignment with other business processes: Project Management and Finance;
- More portfolio reporting and benefit tracking.

Alignment with strategic planning

In 2010, a new business plan was prepared with the cooperation of all STM managers and the board of directors. This ten year plan, called the 2020 Strategic Plan, will enable the STM to increase ridership by 40% and reach 540 million passenger trips by 2020. The strategic priorities of this plan are a continuation of the 2007-2011 plan. To strengthen the link with the 2020 Strategic Plan, it was decided to review the portfolio categories. With a few exceptions, the new categories are in line with the 2020 strategic priorities and take into account the three portfolio areas of needs:

Areas of needs	**Portfolio categories**
Asset maintenance	• Maintain asset
Development	• Expand services • Improve customer experience
Improvement	• Attract, develop and mobilize talents • Further improve performance

Since sustainability is central to all decisions, it was logical that it be integrated into each of STM's portfolio categories.

Once projects are categorized, the main indicators of the 2020 Strategic Plan are used as evaluation criteria. For example, projects in the "Expand services" category are evaluated based on their contribution to improving overall passenger satisfaction. It is one of the five evaluation criteria (five criteria for each category are used to evaluate the project's strategic positioning and five criteria to evaluate the project's complexity). These portfolio categories, along with the evaluation criteria, are the tools used to identify the best projects for reaching each category's objectives. Various graphical representations may be used to illustrate relationship between projects being evaluated. At STM two-criteria bubble charts (strategic alignment vs complexity) are used to compare projects within a category. Figure 1 illustrates the bubble chart for the "Expand services" category.

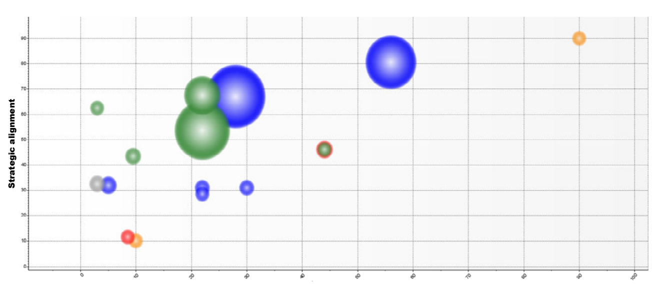

Figure 1: Project graphical comparison for a portfolio category

Consequently, each portfolio category can be balanced while maximizing investments. This balancing is required in order to better manage the three areas of needs: asset maintenance, development and improvement.

Portfolio management support structure

It was decided to create a Portfolio Committee during the second implementation phase. Comprising five members of the STM executive, the Committee meets for 2 hours, 10 to 12 times a year to study submitted projects and authorize the best ones. The involvement and support of the members of the PPM Committee have allowed STM to position project choices strategically, while improving the governance of project authorization.

Alignment with other business processes

Project management

STM's projects are split into two groups: major projects (more than $10M) and sector based projects (less than $10M). To optimize project delivery, STM's project management lifecycle was designed as a Stage-Gate® process taken from the product development area. It integrates numerous performance-driving practices into an easy-to-understand process. Stakeholders are engaged in decisions at all levels, enabling quality executions, timely Go/Kill decisions, alignment and speed. The results: better projects generating benefits faster.

As figure 2 illustrates, the STM project lifecycle includes 5 stages and gates. The project is broken into multifunctional stages. Each stage is preceded by a gate or decision point. Project teams need to go through this gating process to get the authorization to go to the following stage. A director who wants to conduct a project needs to present it to a governing body to get the resources to execute the Definition Stage. He then needs to return to Gate 2 with a full business case to get authorization to go to the Preparation Stage, and so on and so forth.

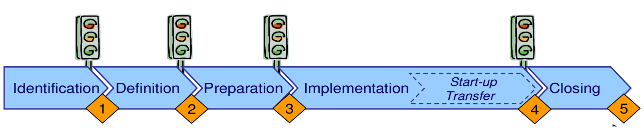

Figure 2: STM Project Management Lifecycle

The PPM Committee is the governing body for gates 1, 2 and 5. The Board of Directors is the governing body for gate 3, and the Project Sponsor for gate 4. If a project's budget, schedule or scope has to be modified, the project team needs approval from the PPM Committee.

Finance

As mentioned above, STM's 2020 Strategic Plan presents a roadmap for the development of public transit over a 10-year period. STM plans to invest a total of $11.5 billion over that same period. Among other things, STM is seeking to improve bus punctuality, metro reliability, passenger satisfaction and information.

Every year, a three-year Capital Expenditures Program (CEP) is produced presenting STM's investment spending forecasts. A few years ago, it was decided that all projects included in the CEP should obtain authorization from the PPM Committee (Gate 2) to be listed in the CEP. Project funding is mainly done by issuing debt, with the balance being paid by cash subsidies.

Such huge investments certainly have an impact on STM's debt load. For a year now, the PPM Committee has been looking at debt servicing when approving new projects. Depending on the result, the Committee may recommend killing, postponing or spreading expenses over time to reduce the pressure from project investments on debt servicing. Debt servicing is a good tool for measuring capacity in terms of financial capacity. STM now needs to develop tools to measure capacity in terms of human resources.

More portfolio reporting and benefit tracking

Within the framework of the 2010 audit, senior managers were asked what should be improved in the portfolio process. They unanimously said more portfolio reporting and benefit tracking.

Portfolio reporting

Starting in 2011, a portfolio review is conducted three times a year in order to report the status of investments in each category. Project managers must supply a status report for their project to the PPM Group. The results for all projects in the portfolio are collected and analyzed. Depending on whether the project shows a yellow or red indicator, the issues related to this indicator are documented, and follow-up is done with each project manager. If required, the project sponsor will have to go back to the Portfolio Committee to get authorization for a budget, schedule or scope modification.

Benefit tracking

In 2012, benefit management and change management processes were developed and integrated into the project lifecycle. According to the UK OGC, the purpose of the benefit management practice is to clearly identify and manage the benefits being realized from the projects in the portfolio to ensure the best use of available resources and maximum contribution to operational performance and strategic objectives.

Integrating benefit management into the portfolio management approach makes it possible to improve benefit identification at the beginning of the project. It also allows benefit tracking once the project is transferred to operations.

VALUE OF PPM

Through portfolio management, STM has been able to implement management mechanisms that are both rigorous and innovative. Managing project portfolios yields the following advantages:

- Clear indications that projects are in line with strategic directions;
- Optimized resource allocation;
- Better coordination and improved synergy between projects;
- Standardization of project presentations.

From 2005 to 2012, those intangible advantages could be measured through more tangible benefits as ridership went from 361 million to 405 million and customer satisfaction from 84% to 89%.

KEYS TO SUCCESS

Effective portfolio management is more than a series of principles and practices. Successful implementation depends on:

- The organization's commitment to follow the process;
- An organizational strategy with well-defined and agreed-upon strategic objectives;
- Alignment with other business processes;
- Not reinventing the wheel.

The organization's commitment to follow the process depends first on senior management's commitment to support the process and on clearly defined roles, responsibilities and accountabilities. Senior managers should support portfolio management by publicly championing and positively communicating the value of portfolio management within their areas of command. The roles of the Portfolio Committee and other key positions should be clearly defined and understood. For example, the project sponsor is responsible for getting all authorizations during project development, he should support the project team and he is responsible for delivery of the benefits once the project is transferred to operations.

To secure middle management commitment, they should be involved in the development and deployment of the methodology. At STM, every time working groups were required, at least one person from each sector was involved and invited to share the outcomes with their colleagues. It is important to get people involved, listen to them, encourage them to contribute and respect their pace.

A strategic plan should exist and be deployed in the organization. The strategic plan should contain well-defined and agreed-upon strategic objectives with associated targets and measures. The people responsible for portfolio management should work closely with the strategic planning and performance function by linking the portfolio with the strategic objectives and performance targets and validating performance claims in a business case.

Portfolio management processes must add value and be perceived as consistent, transparent, accurate and objective. They should also be aligned with other related processes such as strategic planning and financial and project management. Figure 3 illustrates how processes are integrated at STM.

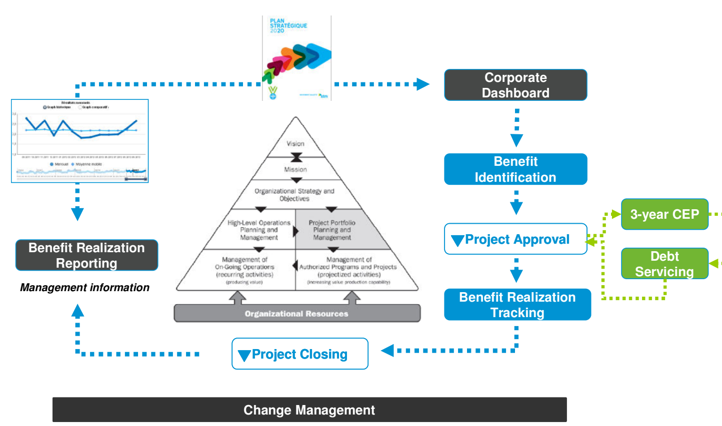

Figure 3: STM Processes

It is important to build on existing organizational processes and not reinvent wheels or change things that do not need changing. It is more efficient to start with best practices, but they should be tailored to suit the organization's needs. Every organization has its own DNA. What is successful in one organization doesn't necessarily spell success in another one.

CONCLUSION

The implementation of portfolio management is an important culture change. It needs the commitment of everybody in the organization, especially senior management. The outcome shows portfolio management yields a positive effect on both financial and human resources.

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