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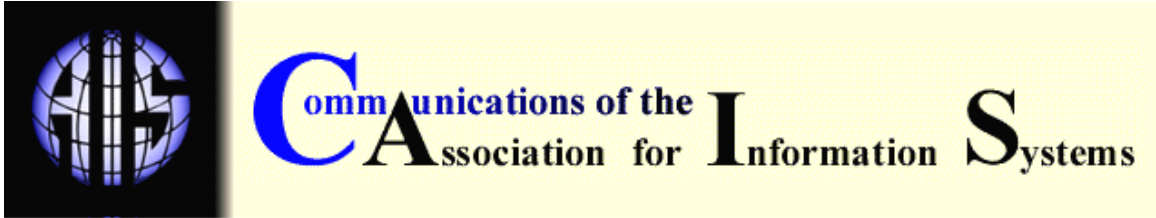
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THE MOLSON COORS OPERATIONAL PORTFOLIO ARCHITECTURE A CASE STUDY

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ABSTRACT

After decades of progress, IT projects are still too likely to fail. Managing projects for success has become a critical goal for many organizations. Project portfolio management started in the Coors Brewing Company (CBC)¹ as a way to improve the success rates of IT projects. Before the creation of an IT program management office (PMO) about 65 percent of running projects were rated as healthy (essentially on-time and on-budget); after the creation of the IT PMO, as many as 95 percent of the ongoing projects became rated as healthy. While the IT PMO was dramatically improving the efficiency of the IT organization, the New Product Packages (NPP) organization was implementing its own product program management office. Ultimately, the combined buzz of these two success stories within Coors led the CEO to sanction the creation of a U.S.-divisional PMO – known as the CBC PMO. With the recent merger with Molson Canada another layer was created called the Global PMO. What started as a strategic IT initiative ended up changing the entire culture and framework of the company – Coors had entered the elite group of companies that could prove stellar technology investment success rates. Now, while its vision

¹ Appendix A provides a list of acronyms.

is to create PMOs in its other two subsidiaries, Coors Brewers Limited (CBL) and Molson Canada, as it did with the creation of its CBC PMO, the company is running into some new challenges.

This case study is split into four main sections: Introduction, Background (Coors history, project portfolio management history), IT PMO, and Global PMO. In the introduction we present the two organizations that have driven the creation of the Molson-Coors operational portfolio architecture: the IT PMO and the Global PMO. This summary then allows us to frame the four core problems of this paper in both the context of these two PMOs and in the context of the recent merger with Molson, Inc. After clarifying the goals of the paper, we then step back and review the history of the Coors Brewing Company and the history of project portfolio management. With the goals outlined and the background established, we start the section on the evolution of the IT PMO. Finally, in the last section, we show how the four core problems derived from the Global PMO and how lessons learned from the IT PMO may be applied. We hope that by framing the four problems from different perspectives (corporate history, industry approaches, IT PMO evolution and the Global PMO architecture) the reader will be able to more easily develop solutions.

Keywords: project portfolio management, strategic alignment of information technology, project management, project management office, portfolio management office

I. INTRODUCTION

IT PMO (PORTFOLIO MANAGEMENT OFFICE)

In early 2000, the CIO of the Coors Brewery Company, Virginia Guthrie, was just wrapping up an enterprise-wide information technology (IT) initiative focused on the installation of the SAP ERP system. While the project was successful, her experience in IT project management taught her that a clear post-mortem analysis would help turn this success into benefits for future projects. But then she also noticed that her department was limping along with overall project success rates at just above 50 percent. She could not rest on the laurels of one big project success; she had to take off her blinders and apply her lessons learned to the entire project portfolio. With rumors brewing of a merger or acquisition, she realized she had to do something spectacular just to ensure her survivability. She decided that the most efficient way to spread her success to other projects was not to create a lessons-learned document, but to create a project support organization. Such an organization would support:

1. Consistent project definitions through a standardized business case template
2. Better project organization through categorization
3. A standard project methodology, such as that defined by the Project Management Institute
4. A project management training curriculum
5. A project management career path
6. A process for laying out longer, three-year IT strategies

She started by promoting one of her senior project managers, Jeanne Pashak, to build and run the newly created IT Program Management Office (PMO). Over the next several years, Jeanne helped fulfill the vision of a successful IT PMO by not only implementing the six core goals, but by also showing measurable improvement in projects being on-time, on-budget, and on-scope. Examples of some of the larger projects the IT PMO supported include:

1. An organization-wide supply chain overhaul (Cornerstone)
2. Implementation of a data warehouse, business analytic system (3-Peaks)

3. Migration of their data center to an outsourced infrastructure

THE COORS ENTERPRISE-LEVEL PMO

As the IT PMO was achieving success with IT projects, the office of the Chief Strategy Officer (CSO)² was created under the guidance of Lynn Utter. One of the first goals was to evolve the stage gating process³ that was used by the New ⁴Products and Packages (NPP) group to prioritize products. Having developed a strong background in PMO implementation at Procter and Gamble, Barry Morrato joined Coors to lead the evolution of NPP's stage-gate process to include more advanced concepts typical of a mature PMO. As Barry was rolling out an NPP PMO and as the IT PMO was maturing, Lynn Utter and Virginia Guthrie felt it was a good time to convince the CEO to take PMOs to the next level. Namely, Coors needed to create an enterprise-level PMO lead position that would help share best practices among the budding PMO initiatives. As a result, Brenda Davis was appointed as the new enterprise PMO (known as the Coors Brewery Company [CBC] PMO) Vice President to handle strategic-level issues that affected new and ongoing projects. This new CBC PMO office could now champion strategic alignment, process standardization, and PMO marketing issues while lower-level PMOs could focus on methodologies, business case templates, project prioritization standards, and resource management.

The "After" organization shows the CBC's CXO positions as dotted lines to the Global CXO positions. These dotted lines represent a matrixed reporting structure. The direct reporting structure is seen through the solid lines – note how the department PMOs (IT, NPP and Capital) report directly to the CBC CXOs. Not shown is how the CBC CXOs all report directly to the CBC CEO.

During this major change to the PMO structure, the CBC PMO teams got together and took stock of the current opportunities the CBC PMO and the new Global PMO were facing. They came up with the four issues shown in Exhibit 2 and Exhibit 3. 1) At Molson-Coors, projects need to be prioritized against strategic objectives before they get funded. But formalizing a global strategy needs to happen first. 2) Then, if such a global strategy is defined, projects can be prioritized, and resources and financing can be distributed accordingly. But, if executive support does not exist for such prioritizations, business unit managers will distribute their resources and budgets as they see fit – regardless of strategic alignment. 3) If the strategy is well-defined and executive support has been established, the PMO can then track project portfolio health by auditing progress against metrics that are common across all projects' business cases. But, if the PMO has not defined and then required a standard set of metrics, how can the health of one project be fairly compared to that of another? 4) Finally, if all the above pieces are in place, the PMO now needs to be able to schedule and track financed projects to make best use of a limited resource pool and to best audit projects against each other for portfolio health reports. But, what happens to the cost of PMO upkeep if it takes four full-time PMO staff members to manage hundreds of skill sets across an equal number of projects? All of these road-blocks to ultimate PMO success at Molson-Coors could affect the long history of success the PMO has established. So, how can these issues be resolved?

² Appendix A provides a list of acronyms.

³ Stage gating: Articulated by Robert Kooper (Kooper, and Klienschmidt, 1993,) stage gates are defined processes for sets of activities in a project. The end of each stage is characterized by specific gates where rigorous output metrics must be satisfied if the project is to proceed. If the project does not meet those metrics, the project is "killed."

⁴ A teaching note for this case is available from Dr. Richard Scudder at rscudder@du.edu.

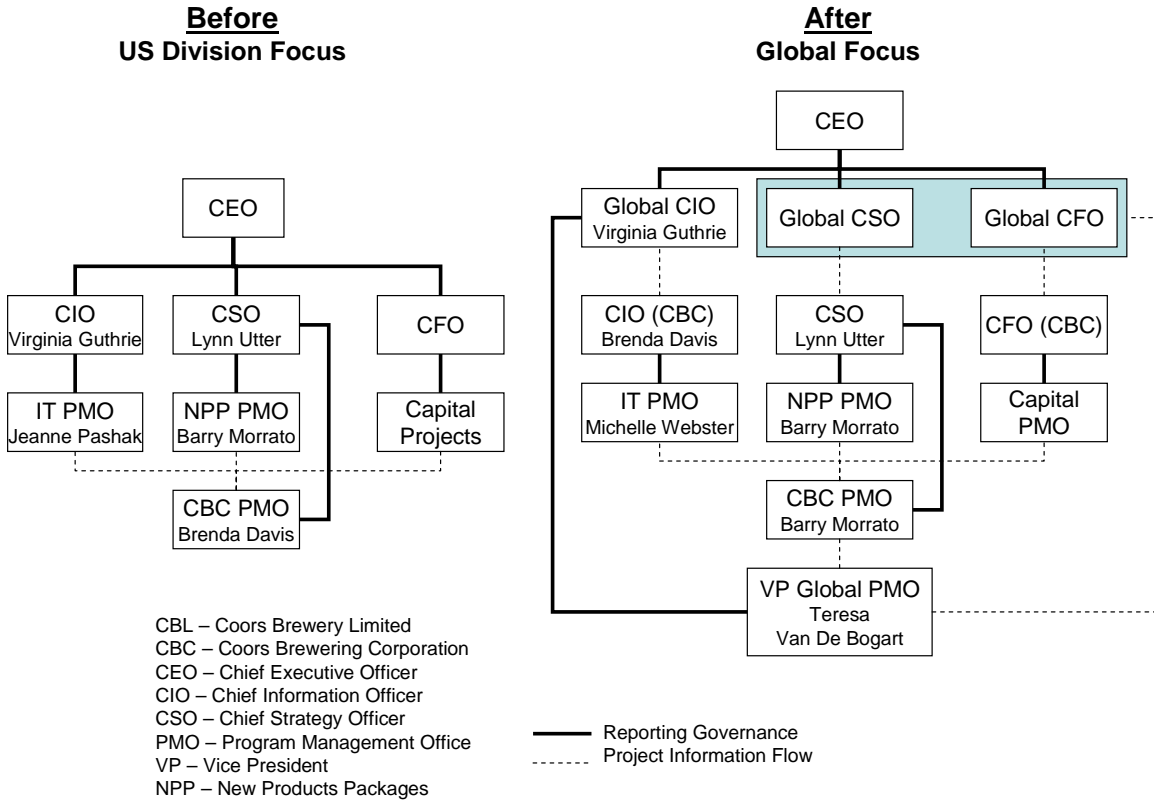


Exhibit 1 – PMO Organizational chart before and after the Molson-Coors merger.

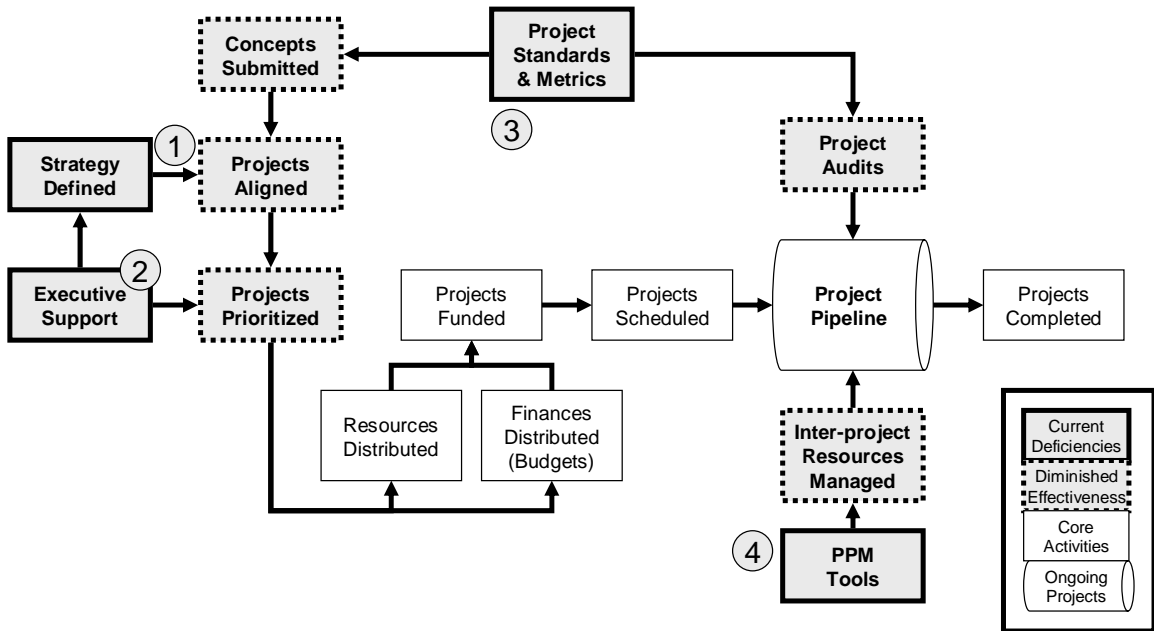


Exhibit 2 – Illustration of the problems facing the GPMP.

Issue	Description
Global Development Strategy	The 1-year and 3-year global strategies need to be developed and deployed so that substrategies and project proposals can align with these strategies.
Continued Support Executive	Executive support of PMO efforts is routinely a “make or break” criterion for long term PMO success. Gaining full executive support is mandatory to solving the road blocks.
Standard Metrics Quantitative	A standard set of quantitative metrics that can be applied to all projects are difficult to find. For example, ROI (i.e. financial) metrics are particularly difficult to apply to non-growth-oriented (e.g. productivity increasing) projects.
PPM Technological Limits	CBC is now monitoring so many projects that their current support software is becoming overloaded. Nowhere is this more apparent than in the management of resources and interproject communications. CBC needs to adopt more sophisticated technology that will pull it out of “Excel Hell.”

Exhibit 3 – Problems facing the GPMO team

In this case study, we will look at the history of Coors up to when they merged with the Molson Brewing Company. We will then provide a short description of the concepts behind project portfolio management and operational portfolio architectures. This foundation will allow us to look at how the PMO and its associated issues evolved (Coors’ PMO history) and what the future of the PMO holds (Molson-Coors’ PMO vision). Such a structured approach should help guide us in finding a set of solutions to the issues currently confronting the Molson-Coors PMO.

II. COORS HISTORY

The Adolph Coors Company was founded in 1873 in Golden, Colorado, by a German immigrant, Adolph Coors. The Coors Brewing Company (CBC), eventually established as the principal subsidiary, created the American lager, nicknamed the “Banquet Beer” and now known as “Coors Banquet.” During the prohibition, Mr. Coors’ company survived by producing malted milk and other related products. In this timeframe, the company also entered the ceramics industry, making products under the name Coors Ceramics – later named CoorsTek.

For much of its history, Coors sold its products primarily in the western American region. Such a distribution approach made Coors a novelty on the east coast. This led to a large stream of travelers who made it a point of bringing back a case when visiting the West. When the 1977 movie *Smokey and the Bandit* centered on an illegal shipment of Coors from Texas to Georgia, the company’s beer entered the realm of pop culture icon. It was not until the 1990s that Coors finally became a nationwide distributor of its beer. At about the same time, Coors introduced the aluminum can - now a standard - to the industry.

While in 2003 Coors was ranked as the third largest beer producer in the United States, its subsidiary in the United Kingdom, Coors Brewing Limited, was ranked second in that market with its primary product, Carling. Then, on July 22, 2004, the world’s fifth largest brewing company was formed when Coors announced that it would merge with Canadian brewer Molson.

Coors has a long history with information technology. Like many organizations in the 1970s and 1980s, Coors gave each of its functional departments a great deal of autonomy. IT projects and applications reflected this decentralized management style. Finance and marketing systems, for example, were developed and run on IBM mainframes. DEC systems were the foundation for manufacturing. Buffington and McCubbrey (2004) report that “stories abounded about management’s inability to, for example, reconcile shipments recorded by manufacturing systems

to shipments recorded by the financial and sales and marketing systems.” This background in IT led to the need for better project management of IT at Coors, as well as development of an architecture, strategy, standards and compliance to them. This became critical in the mid 1990s when Coors began implementing SAP software to integrate its systems.

PROJECT VS. PROGRAM VS. PORTFOLIO MANAGEMENT OFFICES

In the 1990s, projects became important, even critical instruments to support change and strategy in organizations. As this became more apparent it fostered a need in organizations for effective project management. Munns and Bjeirmi (1996), among others, found that more effective project management created the opportunity for better overall organizational performance and decreased the likelihood of project failure. As the success of effective project methodologies became apparent, many organizations instituted those methodologies and required more formal project management practices on their new projects.

It soon became apparent that there was a problem at Coors. By the very definition, projects focus on one-time events in an organization. Lessons learned from hard-won successes and hard-fought failures were lost as project managers moved on to other responsibilities in the organization. New project managers did not have the same understanding of effective project methods. Fleming and Koppelman (1998) as well as Knutson (1998) argue that the establishment of a PMO or Project Management Office (also called a Center for Excellence) can help an organization manage this transfer of knowledge between project managers. It can also assist project managers throughout the organization in implementing project practices, methodologies and tools. The PMO can also serve as the conduit for post project reviews; helping the organization learn from previous successes and failures. The value of these post-implementation reviews is well documented, and an effective means of improving project success. (Kotnour and Vergopia, 2005)

Dai and Wells (2004) identified several of the key activities performed by Project Management Offices:

- Developing and maintaining PM standards and methods
- Developing and maintaining project historical archives
- Providing project administrative support
- Providing human resource/staffing assistance
- Providing PM consulting and mentoring
- Providing or arranging PM training

The Molson-Coors PMO has gone beyond these standard PMO practices to become much more active in the strategic implementation of project management, as seen in the discussion above. Molson-Coors refers to their departmental (e.g. IT, NPP) PMOs as Program Management Offices and their divisional (e.g. CBC, CBL, Molson) PMOs as Portfolio Management Offices.

III. PROJECT PORTFOLIO MANAGEMENT

About a decade after Dr. Harry Markowitz (1959) wrote his well-known book on financial portfolio management in the 1950s, manufacturers started applying the same concepts to managing projects.

With project portfolio management (PPM):

- project deliverables had to be aligned with the strategy of the company,
- project risks had to be balanced across the organization, and

- project benefits had to be maximized.

Over time, other industries started adopting project portfolio management. Examples include the biotech industry, government entities such as NASA and the construction industry, to name a few. More recently, a new trend has been spreading that crosses industry verticals. In the mid-nineties, companies started applying project portfolio management principles to their information technology (IT) departments.

IT PROJECT PORTFOLIO MANAGEMENT

As frustration over IT department spending built through the nineties and then peaked at the turn of the century, executives wanted to apply more formal control/governance mechanisms. Since they knew that the output of projects with IT components was based on the same foundation of uncertainty as financial investments, they figured that some of the controls applied to the latter would work with the former. Nonetheless, unlike financial investments, measuring project risk and return is much more complex due to the introduction of human resources. (Sommer 1999) While projects were framed by a triad of project scope, project timeline and project cost; financial portfolios were framed by a triad of strategic alignment, risk balancing, and financial maximization. The latter framework could act as an umbrella over the portfolio of projects that continued to follow the former framework. Besides, since PPM was working so well for projects across vertical industries, it should also work for IT-based projects within a company. In fact, a study by Reyck, et al, (2005) of 125 companies showed that 88 percent of managers who applied the PPM principle of aligning their IT projects with organizational objectives reported positive results.

While risk-balancing and return-maximization were two important reasons for implementing PPM principles in their IT organizations, the main driver for many companies was the need for strategy-business-IT alignment. For example, Reyck, et al. (2005) discuss the need to focus on “doing the right project,” or choosing those IT-based projects that are strategically aligned with the organization. While this concept has been around since IT’s birth, it continues to grow in importance as businesses become ever more reliant on technology. It also grows in complexity with the increasingly rapid shifts in the marketplace. According to Luffman (1999) “alignment is a dynamic complex process that takes time to develop and even more effort to sustain.” Though Luffman was referring to the alignment of the entire IT organization with the business, the same concepts apply to aligning the portfolio of IT-based projects. For example, Luffman (2003) came up with six alignment (or maturity) categories companies should review to grade how well their IT organization is aligned with their business. Here we show how PPM specifically, supports each of these six categories:

1. **Communication** - Project health statuses need to be communicated to all stakeholders (including executives)
2. **Competency/Value Measurements** – Projects are rated against standard metrics approved by the business units
3. **Governance** – Projects are reviewed for alignment to the strategy by a collectively neutral body before being financed. Then once financed, this same body monitors projects for effective execution against standards.
4. **Partnership** – The methods used in reviewing IT-based initiatives and auditing IT-based projects are approved by the business and by IT.
5. **Technology Scope** – Projects are reviewed for alignment with the IT architecture by a committee of IT specialists before being financed.
6. **Skills** – Resources are managed between projects to ensure skill growth and to avoid project bottlenecks.

The first applications of IT PPM involved consolidating project health statuses into summary reports for executives. This required program and/or portfolio managers to summarize status reports into a spreadsheet or document, by hand, on a regular basis. With software developers being as entrepreneurial as they proved during the internet bubble, PPM product companies started sprouting up. They offered more sophisticated ways to manage a portfolio of projects than did spreadsheets. Recent research by AMR (Gaugan 2004), Gartner (Light 2004 and 2005) and The Meta Group (Metaspectrum 2004 and 2004) put the number of software vendors offering PPM solutions at around 45. But, as lessons started to be learned into the next century, one central theme became clear: IT PPM was sufficiently different from classical PPM to warrant different standards. The key standard shift was based on PPM failures that resulted from

1. Portfolio management offices (PMOs) that grew too bureaucratic;
2. project managers who entered little or inaccurate data into PPM software solutions; and
3. executives who failed to provide critical and continuous support.

The results of such lessons learned were to expand IT PPM beyond portfolio control approaches such as executive summary reports by implementing strong portfolio-level project support standards.

Portfolio Control

Executive involvement is crucial to PPM initiative success, and to gain such involvement, a PMO must constantly prove that the portfolio of projects is under control. Having a solid communication platform in place that takes project manager statuses and summarizes them into easy-to-read reports is a good start. Other required controlling elements include prioritization metrics, business case templates, concept selection processes, project methodologies, project auditing teams, and asset management processes (Bonham 2005). A PPM software deployment, using digital dashboards supported by these peripheral elements provides a high level of transparency, control and value-add to the executives.

Portfolio-Level Project Support

To be successful with PPM requires not only strong executive support, but also broad organizational support. Since PMOs tend to be branded as "Project Nazis" for their hard-handed approach to process compliance, project managers tend to do what they can to avoid interaction. They take such actions as entering invalid data on status reports, ignoring audit requests, avoiding methodology requirements, and rejecting resource recommendations. One way to eliminate such PPM breakdowns is to build a culture of project support at the portfolio level. Active executive support for such efforts is crucial to success and leads to significant improvements in efficiency, according to Fretty (2005). Only at this level can standardized training curriculum be propagated, project management career paths be defined and corporate-wide outsourcing contracts be penned. By developing these and other support approaches can the project management staff start to see more benefits out of than effort put into a PMO. And once this message is delivered, cultural change will occur and PPM success will follow.

OPERATIONAL PORTFOLIO ARCHITECTURES

As IT PPM has become successful over the last few years, other divisions in the organization are starting to take notice. Product managers, marketers, and plant managers are some of the business unit leaders that are seeing the value in applying PPM principles. Even the IT organization saw that they could apply the principles that have been applied to IT PPM to their internal operations. Some examples of new acronyms that have developed include: IT Portfolio Management (ITPM), Application Portfolio Management (APM), Corporate Portfolio Management (CPM), Global Portfolio Management Office (GPMO), Product Portfolio Management Office (PPMO), and IT Portfolio Management Office (IT PMO). A company that has built a solid cultural foundation of project management and portfolio-level project support has reached a certain level

of PPM maturity. If that company has also established strong executive support and a history of solid portfolio control then it is able to move to the next level of maturity – that of an operational portfolio architecture.

An operational portfolio architecture is a structured way for a company to spread the successes of a departmental PMO across the organization. According to a survey of over 250 companies by Dye, Lowel, and Pennypacker (1999), “a significant number of businesses . . . operate portfolio management within the business unit, and they also have a centralized or corporate portfolio management method (44.7 percent of respondents).” Such a structure, or an architecture, can cross two dimensions: via a vertical/organizational architecture and/or via a horizontal/functional architecture.

Vertical/Organizational Architectures

A vertical portfolio architecture places portfolio management offices at various levels of the organization (see Exhibit 1). The topmost level would be an enterprise (or global) portfolio management office (PMO) that addresses more of the strategic duties of a typical PMO. At lower levels, strategic business units (SBUs) can have their own PMOs that oversee departmental PMOs (e.g. IT, product development, finance). These lower-level PMOs would focus less on strategy development and propagation, and more on portfolio-level project support duties such as interproject architecture, asset, resource, and knowledge management.

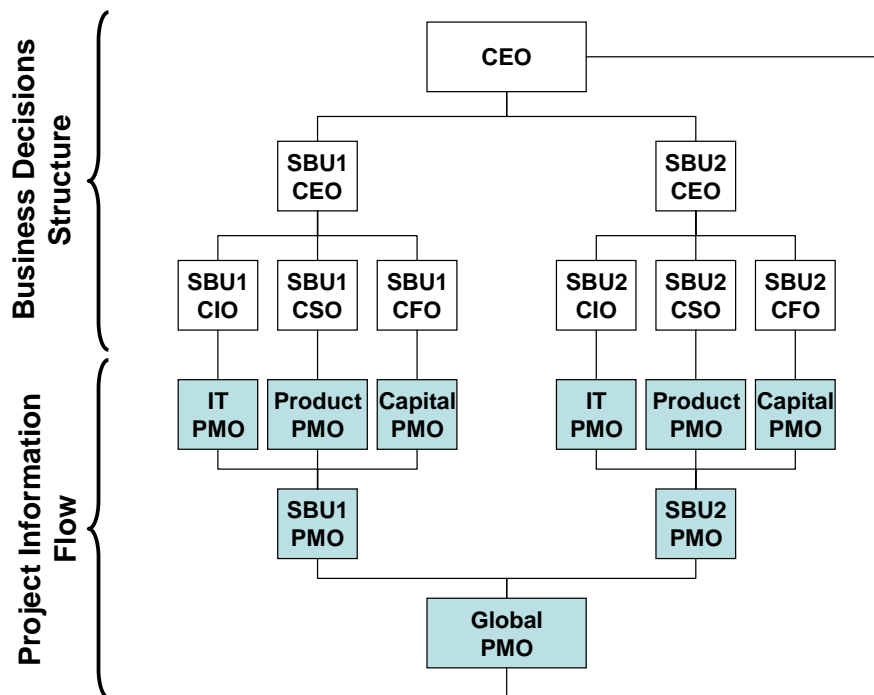


Exhibit 4 – Organizational Portfolio Architecture

As a vertical architecture evolves, overlap with other departments can become apparent. For example, a Global PMO can begin to take on some of the duties of a preexisting strategy management office and a SBU PMO can begin to support the vendor management duties of the procurement office. But, without a well-defined architecture that helps establish organizational expectations, such an evolution can lead to damaging turf battles. The architecture presented in Exhibit 4 shows how the CEO receives information on project health from the responsible parties

(SBU CEOs) and from an objective/neutral party (Global PMO). Such a matrixed governance approach propagates the organizational structure typical of project-centric organizations all the way to the top.

Horizontal/Functional Architectures

The other dimension of an operational portfolio architecture is the horizontal architecture which addresses the functions, or duties, that each of the different PMOs can adopt. Maizlish and Handler (2005) introduced one of several recent PMO maturity models that uses this approach as a framework to determine the project management maturity level of an organization. In their proposal, they refer to some of the elements in Exhibit 5 as subportfolios within a PMO. This form of architecture helps standardize PMO processes across the organization which, in turn allows for more efficient inter-PMO communications and support. Exhibit 5 shows a sample project pipeline with the various horizontal portfolio components. Some of these subportfolios tend to be more capital-liquid than others depending on their location relative to a project pipeline. For example, the concept or initiative portfolio is made up of a set of business cases that have had a lot of time, but no money invested in them. The project sponsor can easily back out at this time and invest their budgeted money elsewhere. On the other hand, an application or product portfolio can be even less liquid – rarely can its components be sold for a profit. In extreme cases, such portfolios can introduce unwanted inflexibility that can, in turn, control the strategic decisions of a company. While Molson-Coors is implementing their organizational portfolio architecture, they are less mature with their functional portfolio architecture.

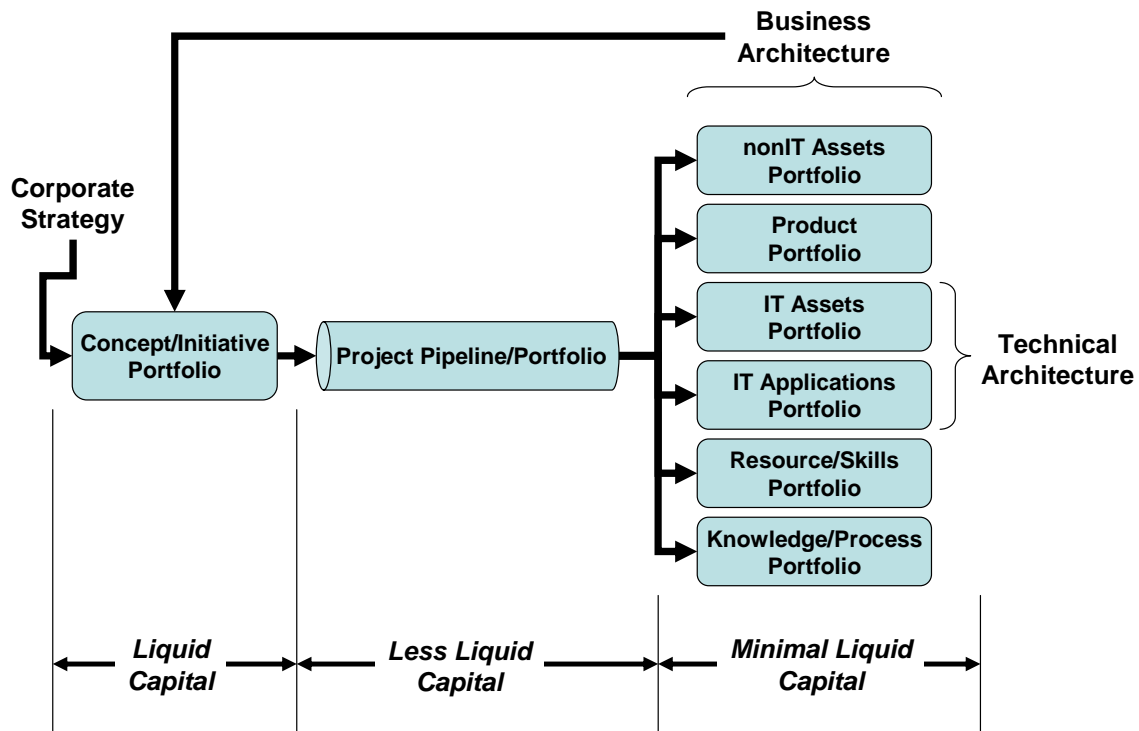


Exhibit 5 - Functional Portfolio Architecture

IV. THE IT PMO AT COORS

Before we address the four problems facing the Global PMO, let's review the history of the IT PMO at Coors. The first IT PMO started with an IT operating committee that managed project

finances and strategic alignment issues. This Operations Committee (or OpComm for short) was so successful that it was the main reason for expanding the concept into a full portfolio architecture. Besides satisfying the original goals as set forth by the IT leadership, this committee introduced the concept of portfolio balance and governance. By exploring the roots and the evolution of the IT PMO, some hints to a solution for the GPMO may become evident. In this section we will review how the IT PMO built their organization through three general phases: *Controlling* their project portfolio; *Directing* their project managers; and providing portfolio *Awareness* for the executives and the project management staff. We will then show how problems were realized and then solved in the section entitled "Fine Tuning the IT PMO."

CONTROLLING

The CBC IT PMO was created due to lower level managers communicating the need for, and the then-CIO's (Virginia Guthrie) strong support for good processes and control. At the time that the CBC IT PMO was established, projects were being executed throughout the organization with little or inconsistent project management. There was no value placed on project management as a skill and anyone was considered able to manage projects. The IT PMO lead, Jeanne Pashak, had to establish project management as a valued skill and formulize a project management methodology. However, new projects were being kicked off all the time that required immediate attention. The first step to quickly influence the outcome of the projects was to require that all new projects being kicked off be assigned a project manager from the PMO. Sometimes this meant going external when there was no available internal project manager. Initially this was met with resistance from project sponsors since it was viewed as an unnecessary expense to the project. But, after the CIO provided support during these early phases, this process was recognized as a clear value-add and the IT PMO lead eventually determined all project management assignments. Another step to better control the portfolio was the establishment of a \$50K in-cost criterion for labeling an initiative a project. Before this criterion was set they had an unmanageable number of "projects."

DIRECTING

To gain credibility with the Coors leadership team, to motivate the project management staff on the value of a PMO and to help establish project management as a valued skill, Jeanne:

1. designed a career path (Exhibit 6)
2. required PMs to become Project Management Institute ([PMI](#))-certified project managers
3. applied performance accountabilities (based on project management discipline and project results) to every project manager's annual performance rating
4. developed a project management methodology

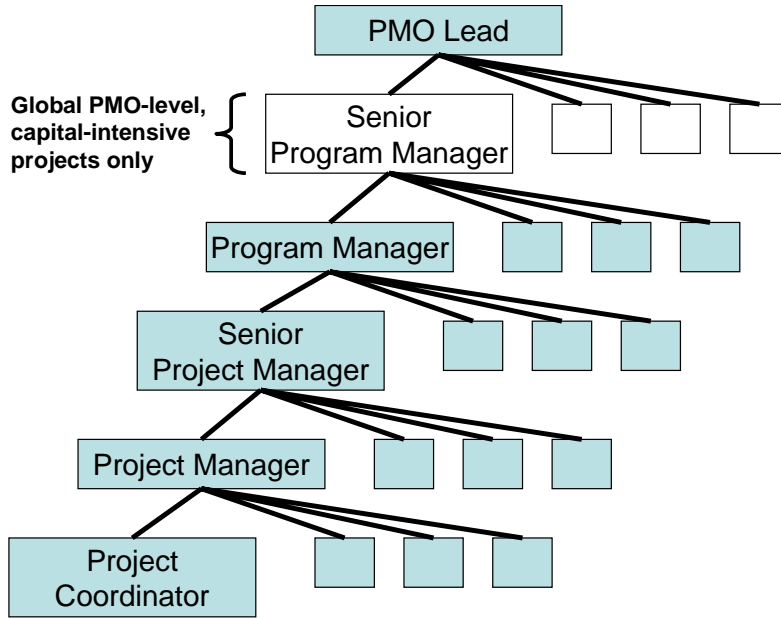


Exhibit 6 – Project manager career path (IT PMs and corporate PMs)

AWARENESS – DASHBOARD AND METRICS

The CBC IT PMO needed to ensure executive support and visibility of project execution. A rudimentary dashboard report was created (using MS PowerPoint) that gave red, yellow, green indicators based on specific metrics for schedule, scope, cost and risk by project (see Appendix C). Exhibit 7 is a chart for 2003 - the second year this dashboard was used - that shows the percentage of projects whose overall score was red, yellow, or green. (The dashboard originally started in late 2002, but only showed highly subjective and unaudited red/yellow/green ratings by the PMs – i.e. no metrics.) The chart also shows the target success level of the IT PMO which was reached and sustained in 2004 (Exhibit 8). What these two charts show is that the number of projects that were considered healthy went from around 62 percent when the IT PMO was first implemented to around 91 percent in 2005. These results were actually better than the results from a survey conducted in 2001 by Robbins-Gioia of 232 companies. This survey showed a 15-percent improvement in project success rates after implementing a PMO (Robbins-Gioia, 2002). That is, projects were more likely to finish in a healthy state (scope, cost, and schedule) with the aid of a PMO. Two separate Microsoft Excel spreadsheets were used to prioritize projects based on financial return and risk/benefits. While these templates provided a guide for PMs to grade their projects, there was no verification/audit process to ensure the PMs were applying the templates equally. Also, the rating or prioritization rules evolved over time so there was no way to spot trends. While these dashboard report templates provided a foundation to improve project visibility, good communication was needed to integrate them into an accurate central dashboard.

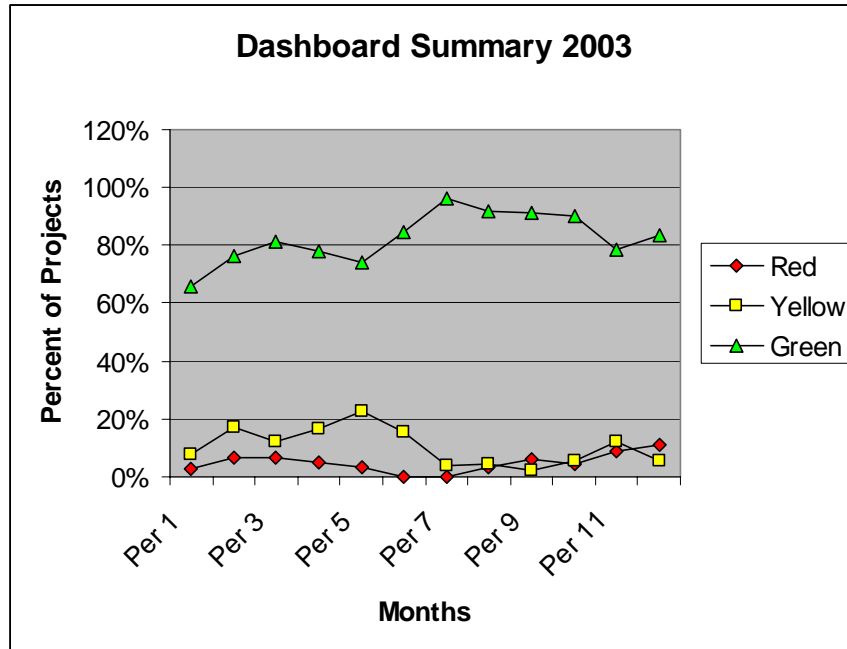


Exhibit 7 – Historical dashboard ratings for 2003 IT PMO.

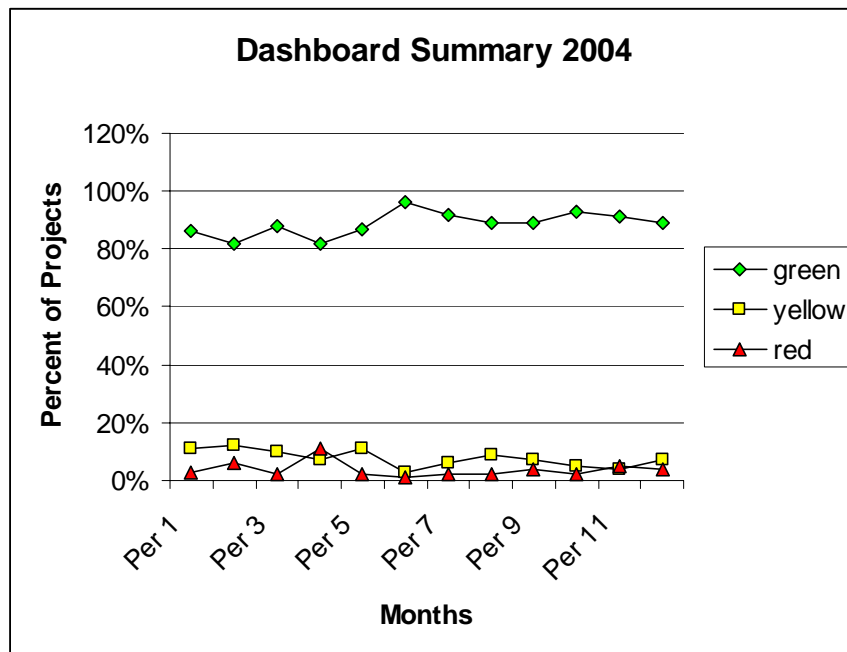


Exhibit 8 - Historical dashboard ratings for 2004 IT PMO.

A monthly meeting was held to review the dashboard and determine if any leadership actions were required. These early reviews took a lot of time to complete primarily because they lacked standards for prioritization. Ultimately, the meetings became relatively short since projects were

taking proactive measures to involve the IT leadership team earlier. The IT PMO also started auditing projects for consistency in grading themselves. These steps effectively eliminated the need for time consuming committee reviews. The majority of time was now spent on the drudgery of consolidating all PowerPoint files into one executive-level dashboard. After about six months of these reviews, the IT PMO finally established a set of consistent metrics to be used for all future project reviews

- Project ROI
- Forecast accuracy
- End-user acceptance criteria

With a strong start in March of 2003 and with continual communication and improvement efforts, the dashboard evolved to best fit the changing needs of the IT organization. Exhibit 9 shows the major changes that occurred over three years. These changes were so effective in solving communication problems that no changes were needed through 2005. Two things to note are the changes made to both the dashboard report submitted by project managers and to the executive summary report presented to the CIO.

- **Dashboard report changes** – The purpose of this report was to get a one-sheet, monthly summary of each project. The main changes focused on how to get good general information on the status of the project (metric-based information formats stayed constant during these changes). The report started by structuring generic information around the scope, schedule, cost and risk (SSCR). Then in July of 2003, they reduced this structure and just requested the PMs to submit this information as an issues list. Finally, in March, 2004, they reintroduced the SSCR structure, but morphed it with the issues list concept (Exhibit 15 in Appendix C).
- **Executive summary report changes** – After the CIO had been receiving this report for 10 months, she decided that she wanted to see the projects categorized (or bucketed) by business process (January, 2004). This allowed her to see how overall business processes were growing through the implementation of new projects. Then in June, 2004 she also asked that a column be added to show what phase (or stage) the project was in (Exhibit 19 in Appendix C). This allowed her to see how close to completion a project was relative to the other projects without having to drill down to the dashboard reports. Finally, in January, 2005, she asked that the bucketing be better tied to the corporate strategy (Exhibit 20 in Appendix C).

V. FINE-TUNING THE IT PMO

BUSINESS CASES

Before the creation of the IT PMO, project sponsors would develop a business case for any IT-based project they wanted funded. Though this added structure to the project approval process, there was not a standard business case template required for all submitted concepts. Such a lack of standardization allowed for projects to be submitted, and even approved with critical metrics and forecasts missing. For example, before the CBC IT PMO existed, the ROI indicated in a business case could be very misleading due to the inaccuracy of cost estimates. Many times the costs were estimated in a vacuum without the appropriate groups being involved. This led to project teams that would execute business cases knowing they were highly inaccurate from the beginning.

By working with the finance department, the IT PMO team was able to develop a very rigorous business case template. This template forced all project sponsors to follow standard guidelines when defining their projects. This also allowed the IT PMO to better compare the health of different projects using the same metrics. Unfortunately, over time, the business case template grew very large which, in turn, adversely affected the time it took to review projects for funding.

So, to reduce the time spent on reviewing all submitted proposals (business cases), an effort was launched to come up with a shorter version. That is, Molson-Coors is trying to balance the fine line between requiring a robust, globally-similar business case template versus one that can be efficiently developed and reviewed. Appendix D gives a summary of one of these business case templates.

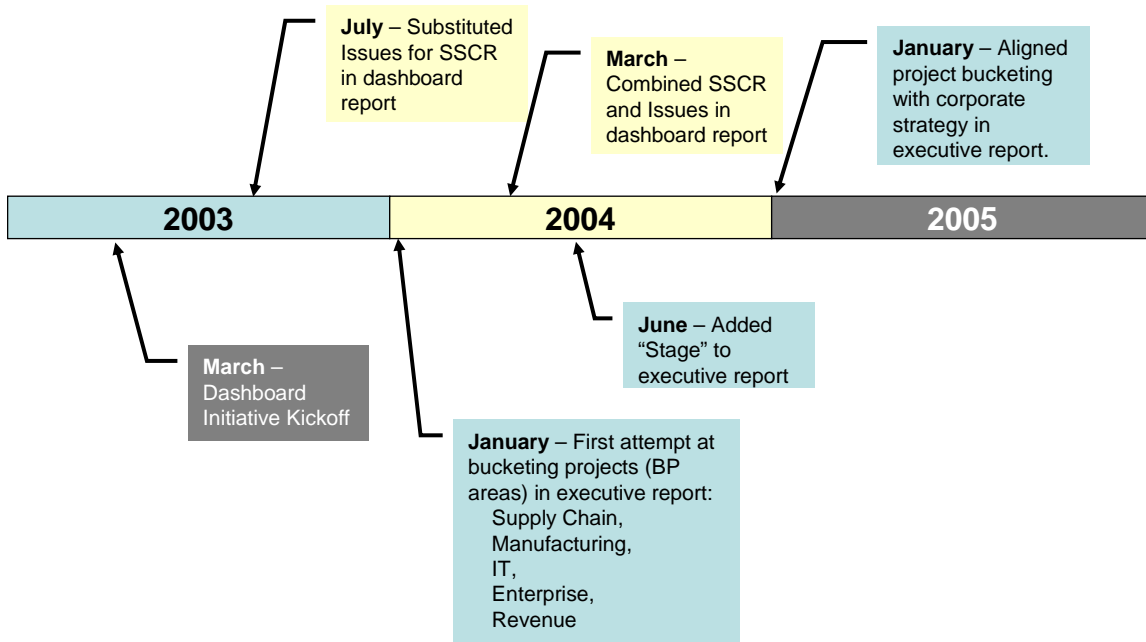


Exhibit 9 - Dashboard evolution timeline.

ARCHITECTURE MANAGEMENT

Recall the example of inaccurate cost estimates that were found in older, nonstandard business cases. Many times, these missing cost estimates included infrastructure costs (e.g., server costs come from one group, desktop costs come from another, etc.). This particular issue became so common that the IT PMO and architecture lead decided to alleviate it by creating a Technology Review Board (TRB) with the IT architecture lead, security lead, and IT PMO lead as permanent members. The TRB would review the project scope, timeline, and estimated costs prior to the completion of the business case and prior to project approval. Such an early review greatly improved the accuracy of the business case forecasts. The TRB reviews also ensured that projects were aligned with the company’s IT architecture. Such alignment helped reduce problems with vendor license violations, help desk training, hardware reuse, and software redundancies.

ORGANIZATIONAL CHANGE

As we have seen, the central goal of the IT PMO was to first develop support for project management success as a foundation before adopting portfolio control concepts such as business case templates, architectural reviews and executive dashboards. By focusing on the project managers first, the IT PMO was trying to establish a new corporate culture that would focus on project management. However, with Coors’ traditionally entrepreneurial/ad hoc approach, it was difficult to change the culture of the free-wheeling project management staff to one of accountability and transparency with a central PMO. To minimize backlash, the IT PMO leadership decided to roll out their new methodologies and metrics to new projects only and grandfather in older projects. This phasing in of new IT PMO concepts allowed the IT PMO team

to avoid disruption of ongoing projects and advertise the success of newer projects. This ultimately led to broad buy-in and usage of the methodology.

ADDRESSING THE PROBLEMS

The IT PMO has now matured to the point of not just staffing project managers, maintaining a methodology, ensuring standards, and reporting to executives; the IT PMO is also becoming more proactive in ensuring project success by aligning proposals and verifying metric reports. If projects are struggling, the IT PMO is viewed as a source for help. Let’s review some of the elements of the IT PMO’s success in the context of the four problems facing the GPMO. Exhibit 10 illustrates how the IT PMO resolved similar issues.

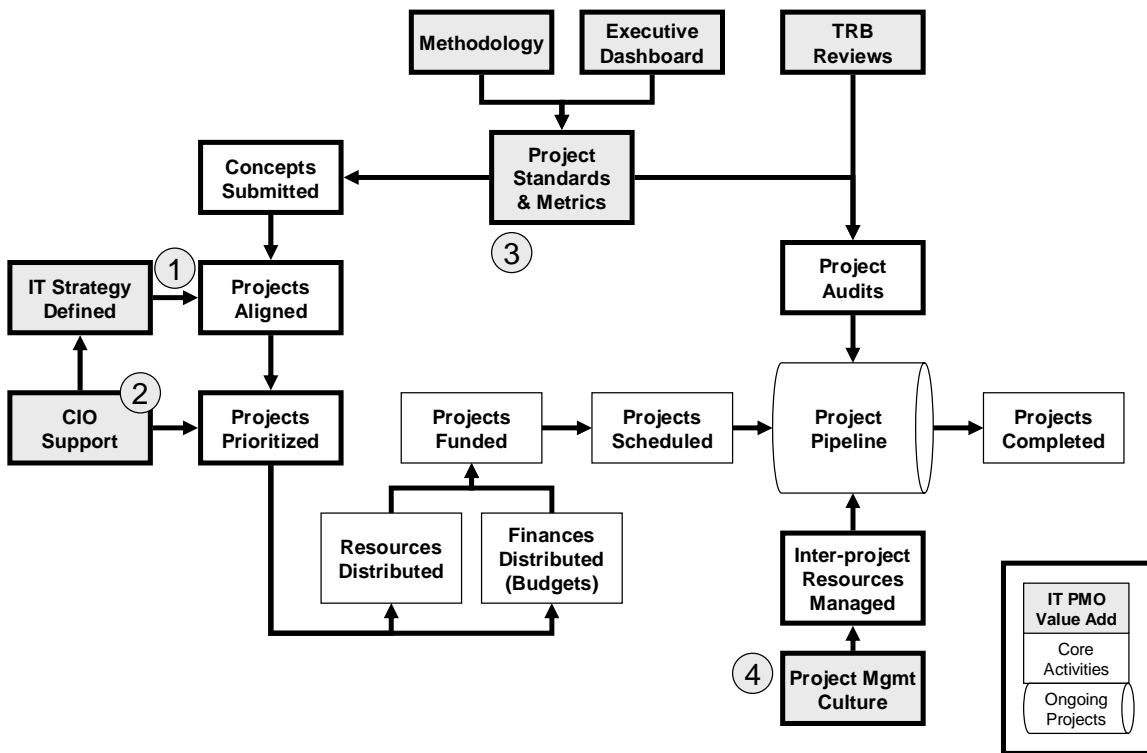


Exhibit 10 – IT PMO resolutions to the four core GPMO problems.

1. In parallel to the development of the IT PMO, one of the core goals was to allow for the development of three-year IT strategies that align and support the corporate strategies. By addressing this issue early and through the relentless support of the CIO, this was never an issue. In contrast to this, the GPMO is still forming its role in conjunction with the development of a global/corporate strategy.
2. With the executive in charge of this group leading the drive for PMO development, there was never a need by the PMO team to segment the delivery and marketing of project portfolio management to an executive committee. Unfortunately, this is not the situation at the global level – the GPMO concept will have to be continuously sold to executives and business unit managers to maintain support. Two proposed techniques include 1) streamlining the processes and work loads required to support the PMO concept; and 2) marketing the value-adds of the GPMO.

3. After several iterations of the metrics, dashboards, methodologies and templates the IT PMO was able to settle on a good set. The GPMO cannot necessarily adopt the same standards and metrics. Rather, the GPMO will need to go through a similar process to narrow down those standards and metrics that best support and monitor global projects.
4. The IT department was small enough to allow for simple rescheduling of department and project resources. This process was eased greatly with the introduction of training and a documented career path. By having a pool of better-trained and motivated PMs, the process of selecting a PM became easier for the IT PMO. But, even if such approaches were applied at the global level, the number of resources to manage has become complex. And while a software tool was not necessary in the smaller IT department, it is still desired for the larger global PMO.

VI. THE GLOBAL PMO ARCHITECTURE

THE ENTERPRISE (CBC) PMO

The phased rollout approach of the IT PMO not only allowed for measurable successes, but it also allowed for easier organizational change through the IT vertical. But, how can the same balanced approach be applied across other departments horizontally? The next diagram shows the early evolutionary steps followed towards the creation of a CBC portfolio architecture. Once the IT PMO was created (Step 1) projects started becoming more successful (Step 2). After a career path was established, training opportunities were realized and the methodology was applied to some pilot projects, the IT PMO director started seeing some good returns. The documented successes of these projects were then marketed to the remaining project managers and project sponsors to get buy in of the support the IT PMO offered. Then as all projects in the IT department started showing measurable success, the director of New Products Packages saw an opportunity and applied portfolio concepts to the management of his large number of product development projects. Thus the NPP PMO director position was created (Step 3). With successes in the IT and the NPP departments, The IT PMO team now had the marketing material they needed to sell the concept to the CEO. Their desire was to convince the CEO that portfolio management principles could be applied to other groups in CBC (Step 4). In late 2003, once the CEO was convinced of the value of applying PMO principles, he created a new position: Director of the CBC PMO (Step 5).

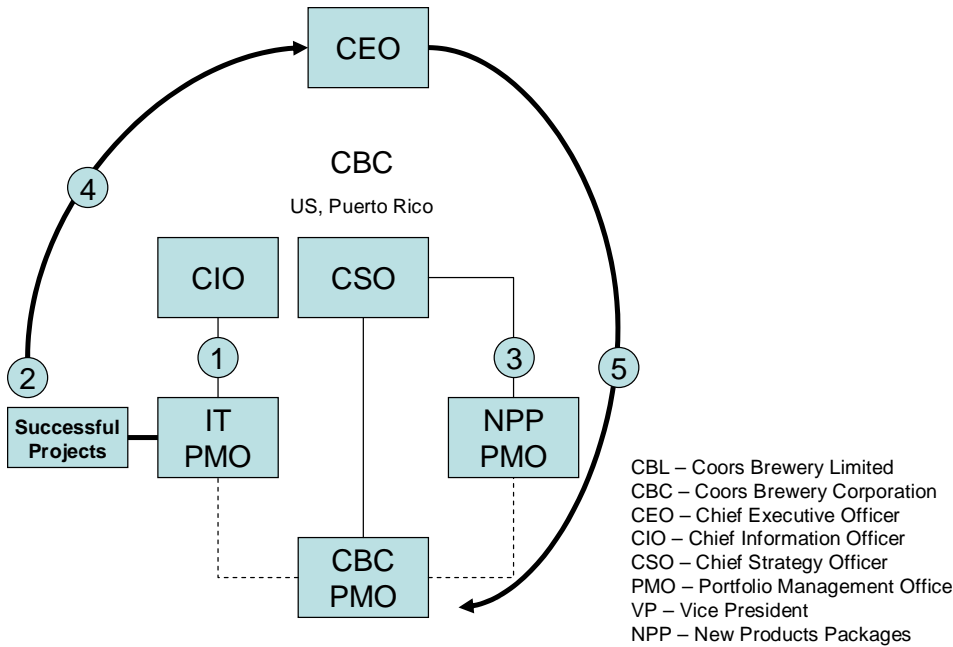


Exhibit 11 – Evolution of CBC’s PMO architecture

1. Executive support (CIO) launches the IT PMO.
2. Project managers were directed to adopt methodologies, take training, and track project health. Early wins were achieved, costs were measured and reduced.
3. New Products Packages PMO created, IT PMO success marketed to business unit leaders.
4. CEO was convinced of PMO value.
5. CBC (enterprise) PMO was created.

The CBC PMO was created as the first step to bring more discipline to company-wide initiatives (non-IT engineering projects). Throughout 2004, the CBC office grew by implementing a concept evaluation methodology, a set of standard metrics, and health tracking reports for any non-IT-based projects that was spending greater than \$1 million. In some cases, projects were passed to this PMO for review if they had critical strategic effect but were less than \$1 million in cost. These criteria have led to between 50 and 100 projects that were touched by the CBC PMO at one time. While the CBC PMO could focus more on strategic-level portfolio support elements, lower-level (departmental) PMOs such as the NPP and IT PMOs could focus more on tactical-level portfolio support elements such as project manager governance. This allowed departmental PMOs to spend more time on evolving standard methodologies, training curriculum and inter-project communication structures. This difference in charters is reflected in the PMOs’ work loads and staffing levels. For example, the CBC PMO believes that by keeping its staff levels small (e.g. 1-2) it will not only be able to achieve its goals, but it will also reduce rejection from middle management by eliminating the appearance of bureaucratic growth.

The CBC PMO team decided to combine the lessons learned from the IT PMO with a framework developed by the Executive Leadership Group™ (ELG™), a consulting company specializing in project environment assessments. The ELG™ assessment model used air traffic control and weather station analogies. For example, as the PMO evolved it could take on one of several

forms (See Appendix E). In the case of Molson-Coors, they were able to label the IT and NPP (departmental) PMOs as *mostly* Control Towers and the CBC PMO as *mostly* a Weather Station.

- **The Weather Station (Awareness)** – The PMO provides current weather reports and forecasts. This can be interpreted as the PMO providing portfolio health reports to executives. Then after comparing these reports to past performances can offer predictions if projects continue down their current paths. The Weather Station PMO lead has no authority of project managers.
- **The Control Tower (Controlling)** – The PMO provides direction to the planes (projects) on how to successfully land or takeoff. In other words, the PMO provides standards, metrics and processes that can be used by project managers to increase the odds of their success. Project managers report to the Control Tower PMO lead.

Since the CBC PMO team had to address organizational change issues across the entire company, they felt it necessary to extend the model by adding the concepts associated with a maturity model. Members of the team worked with outside consultants to consolidate four different project portfolio maturity models into one best-of-breed model. After the CBC PMO's charter had been written and the organization had been running for several months, an assessment was conducted against this model to determine the CBC's current maturity level and what steps should be taken to increase that maturity. Appendix F shows the summary results of that assessment which led, ultimately, to the list of problems the GPMO realized. The assessment showed that the CBC lacked strong executive input/support, resource management/portfolio automation (IT PPM software/tools), architecture management-business/process alignment (strategic development), and solid selection criteria (metrics). While other areas showed good maturity levels, the CBC PMO leaders felt that if these problem areas weren't addressed that a Global PMO could be rejected by the organization.

THE GLOBAL PMO

Soon after the Molson merger announcement, "Global" level positions were created to coordinate various strategic business unit leaders. For example, the Global CIO was created to align the IT strategies in CBL, CBC and Molson. This same approach was taken with the various PMOs via the creation of the Global PMO (GPMO) VP position. While in the beginning, only the CBC PMO is governed by to the GPMO VP, plans were already under way to create CBL and Molson PMOs. And with these plans came an even larger organizational change hurdle than any of the predecessor PMOs faced.

Organizational Change

As with the IT PMO and the CBC PMO, the barrier the GPMO ran up against was from a group unconvinced of the value of the PMO. The GPMO needed to face a central issue associated with the classic brewery market – that beer has historically been a very localized (siloe) industry. For example, years ago, many cities had three or four of their own breweries. Then as improvements were made in brewing processes and technology, companies were able to mass produce and distribute high quality beer. Even though national brands became dominant, the siloing continued in the form of regional marketing approaches. This was necessary as competition increased from large companies even though the number of breweries decreased. This history of regionalization (or siloing) carried over into other areas of the culture of Coors. Most significant to the GPMO was how each area of the organization developed its own perspective on project and program management. In most cases, the processes were ad hoc, and resistance to more sophisticated methods was significant. Changing the culture from such a siloed view to a more global or organization-wide view made it difficult for the GPMO to market the concepts of centralized project portfolio management. How could the GPMO successfully market the benefits of centralized project portfolio support and control to CBL and Molson project managers who had long worked independently for the success of their siloed markets? By realizing that regional differences were based more on classic marketing approaches than on

pure consumer preferences, the GPMO was able to better appeal to middle managers' business sense.

As Molson-Coors implemented their portfolio architecture, they started to run into the growing pains as outlined in Exhibit 3. The organizational change problems such as waning executive support were typical of any PMO effort regardless of its maturity. Along with cyclical executive involvement, the PMO leaders were also starting to get bite-back from mid- and senior-level management as the PMO architecture began to spread into their areas of governance. This has led the PMO team to realize that their approach of focusing more on project success/support rather than on portfolio control reports for executives may need to be reevaluated. The IT department made a strong push for providing support for projects through the central IT PMO. Now that a strong project management culture exists in the IT department (i.e. an environment of PMO project support and project manager growth), should the current portfolio control methods such as PPM reporting, project auditing and concept review boards be improved? With new organizational acceptance hurdles looming, a GPMO more balanced between project support and portfolio control principles may have a better chance at recruiting support among the upper managers. While the IT PMO was riding high on its success and CIO support, it still had to use different approaches to gain support for the IT PMO among the different IT groups (e.g. PMs, architects, operation specialists, etc.). One way for the GPMO to gain similar embracement among senior managers is to focus on supporting them with accurate, timely, and useful portfolio health reports.

MOLSON-COORS' PMO VISION

In early 2005, CBC merged with the Molson Beer Company. The combined company, called Molson-Coors, now had three major divisions (Coors Brewery Limited (UK, Europe, Asia), Coors Brewery Company (US, Puerto Rico) and Molson (Canada) with similar counterparts (e.g. IT departments and the New Product Packages department). The following exhibit takes over where Exhibit 11 left off by showing some of the latter evolutionary steps of the portfolio architecture. The first expansion of portfolio concepts was to the CBL subsidiary (Step 6) with the creation of both an IT PMO and an NPP PMO. Then, since portfolio management has such a strategic component to it, the CBC PMO leadership was directed to report to the Chief Strategy Officer (CSO) – Step 7. Finally, the VP of Global PMO plans to apply the portfolio management concepts to Molson Canada, by rolling out an IT PMO (Step 8), and a global portfolio prioritization process and framework across all divisions for cross-functional initiatives.

This "building outward" of the architecture is one of the two core goals of the GPMO. Their strategy in accomplishing this is to do so through the creation of Centers of Excellence (COEs). These COEs are comprised of the IT PMOs and the NPP PMOs as shown in Exhibit 13. While IT and NPP are the only two divisions that have enough projects to warrant such COEs, others are being considered.

In the next exhibit, we show how such COEs fit into the overall report structure of the vertical PMO architecture. In effect, the COEs create a third matrix dimension. The Global PMO will select one of the PMO leads from the three PMOs in the COE to act as COE lead. This means that any PMO lead would be reporting:

1. Interbusiness unit collaboration results to the COE lead
2. PMO implementation efforts to the Global PMO VP
3. Project portfolio metric updates to their functional CXO

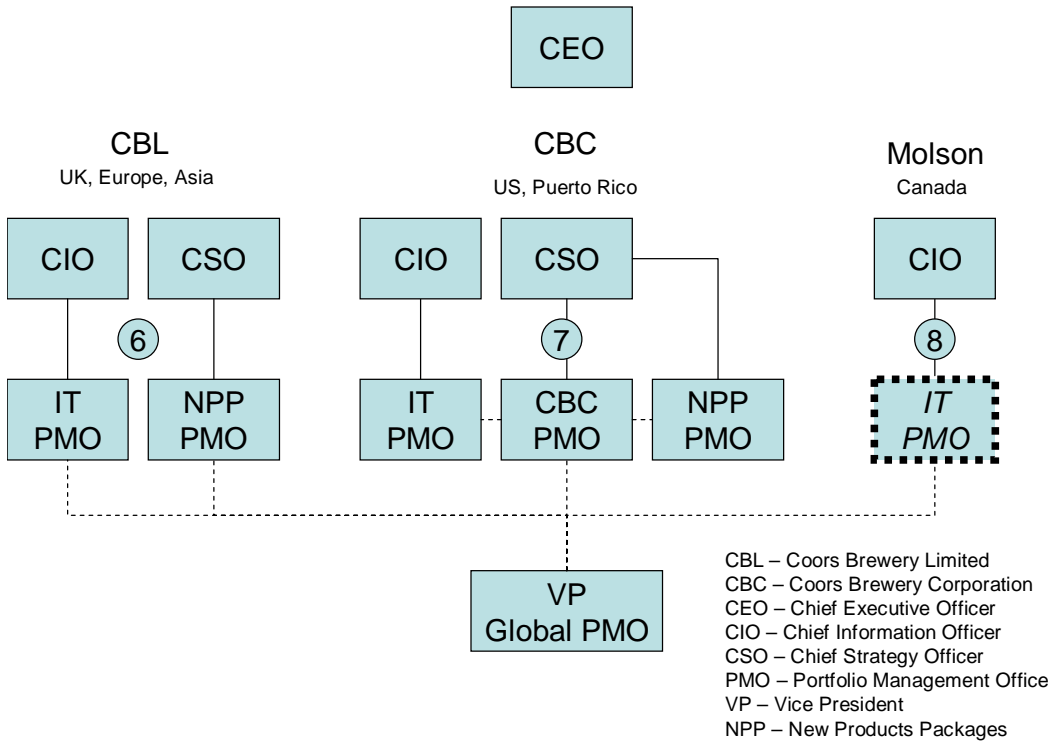


Exhibit 12 – Latter phases of rolling out the organizational portfolio architecture.

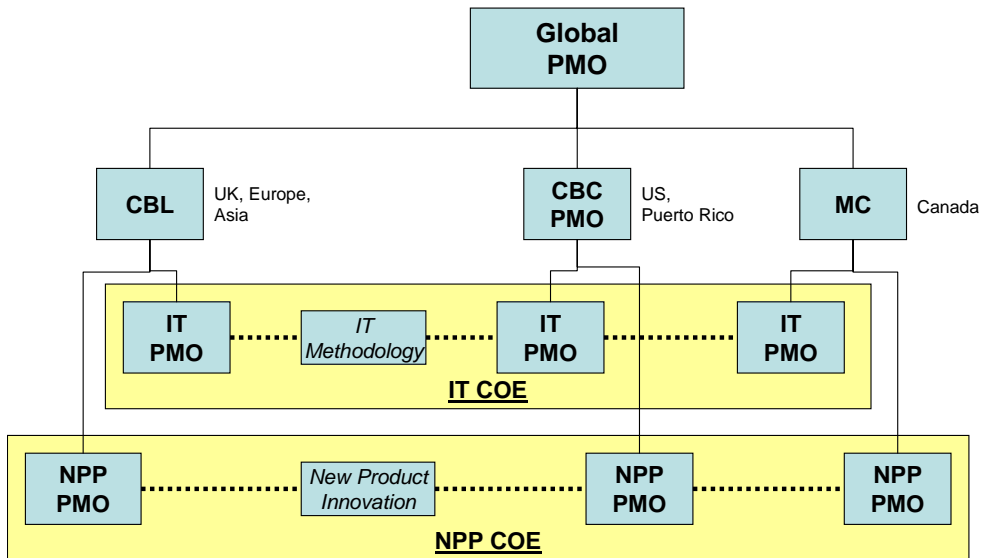


Exhibit 13 – Organizational structure of the PMO Centers of Excellence (COEs).

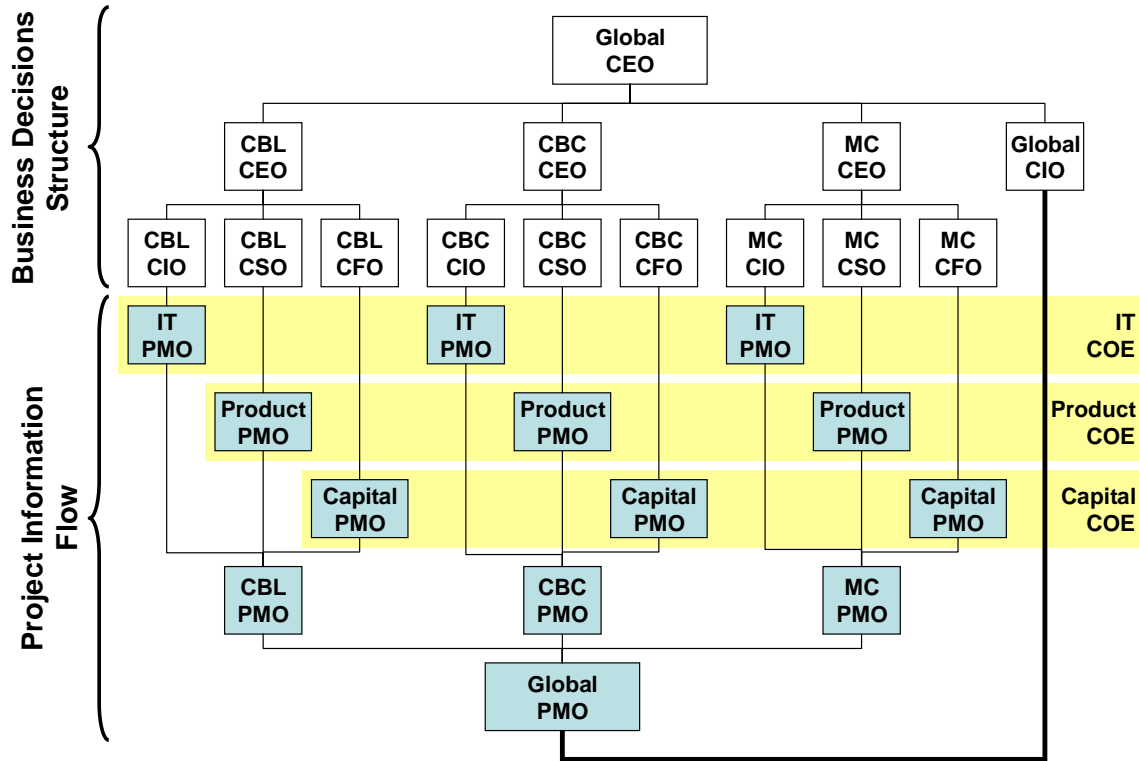


Exhibit 14 – Molson-Coors’ vertical portfolio architecture with Centers of Excellence highlighted.

The other core, near-term goal of the GPMO, is to focus on maximizing the financial return of all project portfolios. With a desire to meet financial goals, other nonfinancial metrics are being ignored. For example, a project that is out of strategic alignment, is high risk and uses existing resources poorly could get approved over other more worthy projects if it promises higher financial returns. Once the near-term financial goals are reached, Coors intends on resetting the prioritization metrics to better map to the needs of a project portfolio. In anticipation of such a strategic shift, the CSO is already developing a new strategy that will help the global PMO develop updated, less financially centric, but equally quantitative, metrics. And this leads us into one of the four problems facing the GPMO: Standard Quantitative Metrics.

VII. CONCLUSION

Not only did Virginia achieve her goal of building a world-class IT organization, and not only did she survive at the company after a major merger, but she exceeded all this with a promotion and an organization-wide cultural change. Projects across the corporation were now being run as successfully and with the same attention to detail that Joseph Coors applied to his namesake beer.

We started this paper with an introduction of four problems that the GPMO is facing. The GPMO team feels that to successfully expand the PMO concept to the other business units, the GPMO team needs to solve each of the problems as the CBC IT PMO did. That brings up some questions:

1. Are the problems that the GPMO faces the same as those which the CBC IT PMO faced? What are the similarities and differences?
2. What kinds of metrics would you suggest should be used to measure the progress of the GPMO?

3. How difficult will it be to create the GPMO in the midst of a merger? What are the advantages and disadvantages? What pitfalls should the GPMO team anticipate?

APPENDIX A – LIST OF ACRONYMS

CBC	– Coors Brewing Company
COE	– Center of Excellence
CBL	– Coors Brewers Limited
CEO	– Chief Executive Officer
CIO	– Chief Information Officer
ELG	– Executive Leadership Group
GPMO	– Global Program Management Office
IT	– Information Technology
NPP	– New Products Packages
OPComm	– Operations Committee
PM	– Project Manager
PPM	– Project Portfolio Management
PMI	– Project Management Institute
PMO	– Program Management Office
SBU	– Strategic Business Unit

APPENDIX B – KEY STAFF

- Jeanne Pashak - Global PMO Group Manager
- Virginia Guthrie - Global CIO
- Brenda Davis - CBC CIO
- Lynn Utter - Chief Strategy Officer
- Michelle Webster - CBC IT PMO Group Manager
- Teresa Van De Bogart - VP of Global PMO
- Barry Morrato - Director of NPP PMO, Director of CBC PMO

APPENDIX C – IT PMO DASHBOARD

PROJECT MANAGER DASHBOARD SUBMISSIONS

The following dashboard submission directions were sent out to all project managers.

- **RECEIVE** By first Monday morning of every period, you will receive a reminder notification via email with the attached previous period's status report – to which will have been added any new projects and / or enhancements.
- **CREATE & SAVE A NEW FILE** from the previous months' presentation that was attached. Open the presentation and delete all slides EXCEPT yours, then rename the new file. **ØIT IS IMPORTANT THAT YOU TAKE A NEW COPY of the project or enhancement template EVERY PERIOD. Please DO NOT RE-USE YOUR PREVIOUS PERIOD'S REPORT TO UPDATE. MANY FORMATTING CHANGES OCCUR "Behind the Scenes," AND IF YOU DON'T REFRESH EACH PERIOD, IT WILL NEED TO BE REDONE.**
- **UPDATE** your slides with status information for indicated period.
 - **DO NOT** modify project name or formatting on the slide
 - **PROJECT GOAL** - Define with one sentence. This will remain static with each update.
 - **PROJECT MILESTONES** - List all major project milestones and dates using "bullets." As the milestone is completed, change the "bullet" to a "check mark." All milestones remain on the slide until project completion.
 - **TRACKING METRICS** - List all Tracking colors for the relevant areas and provide comments / issues if applicable. Include dates if available, current status and brief planned mitigation (i.e., 9/18, Schedule: missed milestone, requesting a later Go-Live date with Project Sponsor).

FINANCIALS – With the exception of actuals, these will remain static with each update.

- Update Total Project \$/Current Year \$ (2 numbers to appear in this window)
- (The first number is Total project (some projects span over a fiscal year, the second number is current year only)
- Update Year-to-date Actuals – Actuals spent, through Period reporting, current year only
- Update Actuals + remaining year forecast - current year
- Update Funding Source (only options are) - IT Capital, IT Expense, Container, Engineering Project, or IT Baseline

- Update Status (only options are) - Complete, Normal Progress, Behind Schedule, Ahead of Schedule
- Update Date: Project Close Date - Project Close (Resource end date. Your Go_Live date should be reflected as a Milestone)
- Update Business Owner - enter Business Owner Name
- Update Project Owner - enter Business Project Owner's name
- Update Project Manager - enter PMO Project Manager Name or BP Name
- Update Team Lead - enter name of key individual(s) from EDS, A&I, D&S, Cognizant

NOTE:

Tracking UPDATES -- The Tracking located in the front of the presentation is for ALL I/T funded Projects and Engineering Projects (not enhancements) greater or equal to \$50K. Please be sure to indicate the status of your project by color for each of the four defined areas on the project status slide.

No need to update these slides. THE PMO will update these slides each period from the updates that are submitted. **SEND** The file to: jane.doe@coors.com by NOON (or sooner) the first Friday of each period.

NOTE: Unfavorable Tracking (RED) will result in a mandatory attendance request to the Project Manager for their attendance at the I/T Op Comm meeting on the second Tuesday of the period.

- All updates must be received by the deadlines.
- If no update is received, the Project page will remain unchanged from the previous period (or blank), and a note on that project page indicating "NO UPDATE RECEIVED" will be inserted .
- If the project update is received, but the PowerPoint presentation template is not used or is altered, this page will be considered "NO UPDATE RECEIVED", so "NO UPDATE RECEIVED" will be inserted on that page.
- If your slide is not in the PowerPoint presentation, DO NOT CREATE ONE. Contact Jane Doe at x72755.
- Jeanne will receive the complete deck for review from Jane by Noon on the 2nd Monday of the period after all updates have been compiled.
- Jeanne will contact Project Manager's BP Lead for those projects with "NO UPDATE RECEIVED", by 9:00 am on the 2nd Monday of the period.
- A slide containing "NO UPDATE RECEIVED" will require a one on one meeting with Jeanne that will take place on the second Monday of the period .

PROJECT DASHBOARD SUBMISSIONS

These dashboard submissions were a one-sheet per project summary that showed the status of the project triad (schedule, cost, scope) and the project risks on the right side. It also showed intermediate times via the milestone listing on the left side. Then, along the bottom, this summary sheet showed (from left to right) cost summaries, miscellaneous information, and contact information. The second exhibit provides instructions on how to apply grades to the four points of the project (schedule, cost, scope, and risk).

[Project Name]

Goal: [Key User Acceptance Criteria or Key Deliverable]

Milestones <ul style="list-style-type: none"> •mm/dd/yy: TRB#1 – Viability Phase Approved <ul style="list-style-type: none"> •mm/dd/yy: Business Case Completed •mm/dd/yy: Viability Stage Gate Review •mm/dd/yy: Planning & Analysis Phase Startup <ul style="list-style-type: none"> •mm/dd/yy: Detail Business Requirements •mm/dd/yy: Project Plan Established & Baseline •mm/dd/yy: Design Phase Startup <ul style="list-style-type: none"> •mm/dd/yy: Design Stage Gate Review •mm/dd/yy: Build Phase Startup <ul style="list-style-type: none"> •mm/dd/yy: Build Stage Gate Review •mm/dd/yy: Implement Phase Startup <ul style="list-style-type: none"> •mm/dd/yy: Go-Live •mm/dd/yy: Production Support Turnover •mm/dd/yy: Project Closedown 	Tracking	Green Yellow	Comments / Issues
	Schedule	Green Yellow Red	
	Cost		
	Scope		
	Risk		

Total Proj \$ / Current Yr	Funding Source	Business Owner
\$		
YTD Actuals	Status	Project Owner
YTD Actual + Remain Fcst	Project Close Date	Project Manager

Exhibit 15 – Project management dashboard submission template – March 2003.

Reference – Project Tracking Metrics




	 GREEN	 YELLOW	 RED
	On track	Caution	Impact
Schedule	All Stage Gate Milestones < or = 5 days of schedule	Current Stage Gate Milestone > 5 days behind schedule	Project Go-Live date > baseline committed date or project schedule not approved
Cost	Total project forecast < or = 105% of approved funding	Total project forecast > 105% AND (< 110% or \$100K) of approved funding	Total project forecast > or = 110% or > \$100K of approved funding
Scope	PCR's exist with no impact to Business Case	PCR's exist with minimal impact to Business Case	PCR's exist with major impact to Business Case
Risk	All Issues mitigated or low priority Issues past due AND low Risks exist	Medium priority Issues past due or critical project Issues being managed OR probable Risks exist but have adequate mitigation plan	Critical or high priority Issues past due OR probable Risks exist and have no adequate mitigation plan

Exhibit 16 – Rules for grading projects on dashboard submissions.

ENHANCEMENT DASHBOARD SUBMISSIONS

Since enhancements were just smaller, less critical projects, some of the tracking data was not required. Namely, the scope and risk metrics were dropped from the right-side chart.

[Enhancement Name]

Goal: [Key User Acceptance Criteria or Key Deliverable]

<p>Milestones</p> <ul style="list-style-type: none"> •mm/dd/yy: xxxxxxxxxxxx •mm/dd/yy: xxxxxxxxxxxx •mm/dd/yy: xxxxxxxxxxxx •mm/dd/yy: xxxxxxxxxxxx •mm/dd/yy: xxxxxxxxxxxx 	Tracking	Green or Red	Comments / Issues
	Schedule		
	Cost		

TEMPLATE FOR ENHANCEMENTS

Total Proj \$ / Current Yr \$	Funding Source	Business Owner
YTD Actuals	Status	BP (PM Role)
YTD Actual + Remain Fcst	Planned Go-Live Date	Team Lead(s)

Exhibit 17 - Enhancement management dashboard submission template – March 2003.

Reference – Enhancement Tracking Metrics



	 GREEN	 RED
	On Track	Impact
Schedule	100% of milestones / planned tasks < or = 5 days of schedule and Actual Go-Live date is / will be < or = 5 days beyond Planned Go-Live date	< 100% of milestones / planned tasks < or = 5 days of schedule and Actual Go-Live date is / will be > 5 days beyond Planned Go-Live date
Cost	Cost forecast is < 110% of approved funding	Cost forecast > or = 110% of approved funding

Exhibit 18 - Rules for grading enhancements on dashboard submissions.

EXECUTIVE DASHBOARD

Once all the dashboard submissions were received from the project managers, the summary (or executive) dashboard report was outlined as follows:

- IT Funded Projects
 - Tracking
 - Project Status
- IT Funded Enhancements
 - Project Status
- Business Funded Projects (>= \$50K)
 - Tracking
 - Project Status
- Business Funded Enhancements (< \$50K)
 - Project Status
- Completed/Inactive Projects and Enhancements

We can see that the IT PMO not only split out projects that were originated in IT from those that were originated in other business units, but the IT PMO also split out projects by size (projects vs. enhancements). The IT PMO also listed all completed and inactive projects to show execution. The following exhibit is an example of the summary report that is given to the CIO.

June 2004 Project Tracking – I/T Funded Projects – By BP Area							
Project	BP Area	Manager	Stage	Schedule	Cost	Scope	Risk
Aris Upgrade	Enterprise	Cindy Musil	Closedown				
Enduring Focus	Enterprise	Rhonda Zieg	P&A				
Integrity in Action	Enterprise	Vinit Shah	Closedown				
ViPER	Enterprise	Marty Godkin	P&A				
3Peaks: El Foundation: Implementation	I/T	Julio da Silve	Design and Build				
CDM Implementation	I/T	Jimmie Kelly	Design and Build				
EDS Transition – CBC-CBL	I/T	EDS – Linda Milne	NA				
Exchange Upgrade	I/T	EDS – Marv Finden	Design and Build				
Portal Strategy	I/T	Jimmie Kelly	NA				
WebMethods Upgrade	I/T	Scott Kelican	P&A				

On Track Caution Impact

Exhibit 19 – Sample executive summary dashboard – June 2004

ALIGNING DASHBOARD WITH STRATEGY

By 2005, the IT PMO started to structure its dashboard around the current strategy of the company. Here we see the projects grouped by core strategic components. This example shows a subset of the projects grouped by:

- Selectively Invest in Growth and Volume Opportunities
- Grow U.S. Market Share through Brand Strength
- Build CBC Business with Wholesalers

By aligning the dashboard with the strategy of the company, the IT PMO team is able to quickly show the executives that their investments are truly supporting the desired direction of the company.

Aug 2005 - Selectively Invest in Growth and Volume Opportunities

Project	BP Area	Manager	Stage	Schedule	Cost	Scope	Risk
Global Data Sync	Revenue	Tharyan George	Impl	Y	G	G	G
Global Sales Information Strategy	Revenue	Francie Morgan	Strategy	G	G	G	G
Pilot Works	Revenue	Andrea Neumann	P&A	G	G	G	G
RFID/EPC (Support Wal-Mart)	Revenue	Mike Abbott	Other	G	G	G	G
SLD Next Generation	Revenue	Sam Maddox	Develop	G	G	G	Y

Aug 2005 - Grow US Market Share Through Brand Strength

Project	BP Area	Manager	Stage	Schedule	Cost	Scope	Risk
MRC (Marketing Research Center)	Revenue	Marty Godkin	Build	Y	G	G	G

Build CBC Business with Wholesalers

Project	BP Area	Manager	Stage	Schedule	Cost	Scope	Risk
CIC Integration	Revenue	Andrew Nixon	Impl	G	G	G	G
NEO (CoorsNet Replacement)	Revenue	Beth Young	P&A	G	G	G	G
SLD Rebates	Revenue	Tharyan George	Complete	G	Y	G	G



Exhibit 20 - Upgraded executive summary dashboard report – August 2005

APPENDIX D – BUSINESS CASE TEMPLATES

The IT PMO required two business case templates be filled out and presented to the approval committee. These two templates are in Microsoft Excel spreadsheet format. The list below shows the five different worksheet tabs in the main business case template. The bullets list the contents of each tab. While the second business case template focused almost entirely on calculating project IRR, there is currently an effort underway to develop a template that is more focused on NPV to replace it.

FEASIBILITY

- Core Information - SAB Project Code, Project Name, Project Champion, Champion Department, Submission Date, Project Type, Requires R&D, Plant
- Opportunity/Proposition
- Financial Summary – NPV and IRR (low, medium and high estimates), Payback, Cash Flow, Total Costs
- Recommendations
- Alternatives Considered
- Major Issues/Risks
- Timing – Assets Available
- Capital Project Depreciation Breakdown
- Measurable Impacts
- Budget Authorizing Signatures (by phase)

BENEFIT SCORE CARD/SUCCESS CRITERIA

- Item
- Weight
- Score
- Weighted Score

COST BENEFIT

- Project Number
- Project Name
- Cost/Benefit Name
- Frequency/One Time
- Startup Date
- Cost Center Impacted
- Cost Center Owner (Signature)
- Description/How Measured/Target Goal
- Supporting Calculation
- Hazards to Realization/Opportunities to Realization

DEVELOPMENT

- Core Information - SAB Project Code, Project Name, Project Champion, Champion Department, Submission Date, Project Type, Requires R&D, Plant
- Opportunity/Proposition
- Financial Summary – NPV and IRR (low, medium and high estimates), Payback, Cash Flow, Total Costs
- Recommendations
- Alternatives Considered
- Major Issues/Risks
- Timing – Assets Available
- Capital Project Depreciation Breakdown
- Measurable Impacts
- Budget Authorizing Signatures (by phase)

EXECUTION SCORE CARD

- Item
- Weight
- Score
- Weighted Score

APPENDIX E – ELG MODEL FOR MOLSON-COORS

The Executive Leadership Group provided Molson-Coors with an “Official Field Guide to the Program Management Office” (Exhibit 21). This guide lists out six different types of PMOs that could describe a PMO. After the ELG assessment, it was found that the departmental (IT, NPP) PMOs followed more of a Control Tower format and the divisional (CBC, CBL and Molson) followed more of a Weather Station format.


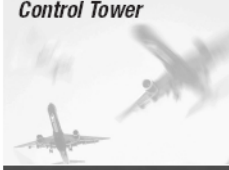




<i>PMO</i>	<i>Functions</i>	<i>Accountabilities</i>	<i>Authorities</i>	<i>Cautions</i>
 <p>Weather Station</p>	<p>Provide executives with credible and useful project progress information.</p> <p>Free project managers from the curse of spending more time reporting on projects than managing them.</p> <p>Act as management's "ear to the ground."</p>	<p>Track and report projects' progress & expenses (vs. schedule & budget).</p> <p>Report on current major risks and issues.</p> <p>Maintain a database of action items, project history documents and lessons learned.</p>	<p>The Weather Station recommends the frequency, format, method of delivery, and associated tools for project reporting and planning.</p> <p>The Weather Station requests data from project managers.</p>	<p>Do not hold the Weather Station manager accountable for project managers' cooperation. Because Weather Station authorities are not strong, it is the project managers' bosses who must do the enforcing.</p> <p>Do not otherwise expect more of the Weather Station than you have authorized it to do.</p>
 <p>Control Tower</p>	<p>Create consistency in the practice of project management—and predictability in its results.</p>	<p>Establish standards for how projects will be managed.</p> <p>Consult on how to follow those standards.</p> <p>Enforce the standards.</p> <p>Improve the standards.</p>	<p>The Control Tower must be able to enforce its standards.</p> <p>Best case: the manager of the Control Tower owns part of each project manager's performance appraisal.</p>	<p>The usability (and enforceability) of standards will decline if too many are written.</p> <p>The person consulting to project managers will, ideally, not be the person who audits the project managers.</p>
 <p>Resource Pool</p>	<p>Provide top-notch selection, development, and retention of project managers.</p>	<p>Provide a qualified pool of project managers from which to draw on a project-by-project basis.</p> <p>Ensure that the project managers use their skills on assigned projects.</p> <p>Grow the expertise of the project managers.</p>	<p>Resource Pool management hires, fires, coaches and appraises the project managers.</p>	<p>Avoid confusion by putting the internal customer in charge of what gets done, while the Resource Pool manager needs to be in charge of how it gets done.</p> <p>So that process does not trump results, the Resource Pool manager must be evaluated at least partly on project outcomes.</p>
 <p>Portfolio Manager</p>	<p>Help resolve the perennial project selection problem that the organization's needs seem infinite, while its resources—money and talent—are annoyingly finite.</p>	<p>Recommend to management priority and sequencing of projects, based on congruence with organizational strategy, likelihood of success, NPV (and/or other financial measures), availability of resources, and other pre-arranged criteria.</p>	<p>Examine submitted business cases and investigate the assumptions on which they are based.</p>	<p>Corporate asset allocation belongs in the hands of executives accountable for project results. Don't hand that power to the Portfolio Manager. In essence, the Portfolio Manager performs only an investigate-and-recommend service for executives.</p>
 <p>Benefits Verifier</p>	<p>Determine whether the promises made in business cases have actually been kept.</p>	<p>Track the outcome of projects to determine if the promises made in the business case are kept.</p> <p>Feed results back to CEO or other designated officer(s).</p>	<p>Any result promised in a business case automatically implies that the PMO has authority to audit that result. Authorities are similar to those of corporate auditing function, with escalation to CEO available in cases of non-cooperation or suspected dishonesty.</p>	<p>The Benefits Verifier requires less expertise in project management and much more expertise in general auditing than the other PMO functions.</p>
 <p>Integrator</p>	<p>Ensure that a program (i.e., a business initiative composed of two or more projects) delivers its promised benefit.</p>	<p>Disaggregate a planned strategic initiative into a handful of projects.</p> <p>Coordinate those projects (manage the project managers) to produce synergies and prevent conflicts.</p>	<p>Program manager will have ordinary managerial authorities over the project managers accountable to him/her (hire, fire, assign, reward).</p>	<p>Don't wait until several projects are well under way to figure out that they are all part of the same initiative and need to be accountable to a single manager. Though, it's always better late than never.</p>

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APPENDIX F – CONSOLIDATED PPM MATURITY MODEL

This is a summary sheet of the consolidated maturity model. The actual model goes into much more detail on each of the 14 maturity categories to most accurately determine maturity levels.

Category	1	2	3	4	5
	Baselining	Implementing	Standardizing	Evolving	Optimizing
Portfolio Prioritization Selection Criteria (metrics, hurdles, gates)		X			
Benefits Maximization			X		
Balancing			X		
Resource Management	X				
Project Management Software				X	
Portfolio Management Software	X				
Architecture Management - Business	X				
Presubmit Initiative Process				X	
Executive Input		X			
Asset Management			X		
Architecture Management - Technical			X		
Process Alignment	X				
Knowledge Mgmt			X		
Portfolio Architecture				X	

REFERENCES

- Bonham, S. (2005). *IT Project Portfolio Management*. Boston, MA: Artech House Publishers.
- Buffington, J. and D. McCubbrey. (2004). "Coors Brewing Company Point of Sale Application Suite: Winning Mindshare with Customers, Retailers and Distributors." *Communications of the Association for Information Systems*. (13), pp. 81-96.
- Cooper, R. and E. Kleinschmidt. (1993). "Stage Gate Systems for New Product Success." *Marketing Management*. (1)4.
- Dai, C. X. and W. G. Wells. (2004). "An Exploration of Project Management Office Features and Their Relationship to Project Performance." *International Journal of Project Management*. 22 , pp. 523-532.
- Dye, L. and J. Pennypacker. (1999). "An Introduction to Project Portfolio Management." in *Project Portfolio Management*, Lowell D. Dye and James S. Pennypacker, (eds.), West Chester, PA: Center for Business Practices, pp. xi-xvi.
- Fleming, Q. W. and J. M. Koppleman. (1998). "Project Teams: The Role of the Project Office." *Cost Engineering*. (40) 8, pp.33-36.
- Fretty, P.(2005) . "Powering Executive Decisions." *PM Network*. October 2005, pp. 23-26.
- Gaughan, Dennis and Carline Durocher. (2004). "AMR Research Report - IT Portfolio Management Software: Clear Benefits, Converging Marketplace." *AMR Research*. June 2004
- Knutson, J. (1998). "The Project Office: An Evolutionary Implementation Plan." *PM Network*. September 1998, pp. 14-6.
- Kotnour, T. and C. Vergopia. (2005). "Learning-Base Project Reviews: Observations and Lessons Learned from the Kennedy Space Center." *Engineering Management Journal* (40)4.
- Light, M. and D. Stang. (2005). *Magic Quadrant for IT Project and Portfolio Management, 2005*. Gartner, Inc., 22 June 2005
- Luffman, J. and T. Brier. (1999). "Achieving and Sustaining Business-IT Alignment." *California Management Review*. Vol 42, No 1, Fall 1999
- Luffman, J. (2003). "Assessing IT/Business Alignment." *Information Systems Management*. Fall 2003
- Maizlish, B. and R. Handler. (2005). *IT Portfolio Management, Step-by-Step* John Wiley and Sons, Inc., Hoboken, New Jersey, pp. 59-64
- Markowiz, H. (1959). *Portfolio Selection: Efficient Diversification of Investments*. New York, Wiley.
- "METAspectrum Market Summary - Portfolio Management Tools." *METAGroup, Inc.*, 24 MAY 2004
- "METAspectrum Market Summary - Project Portolio Management Tools." *METAGroup, Inc.*, 18 February 2004
- Munns, A. K., and B. F. Bhjerimi. (1996). "The Role of Project Management in Achieving Success." *International Journal of Project Management*. 14(2) pp. 81-87.
- Reyck, B. and Y. Grushka-Cockanyne, M. Lockett, S. Calderini, M. Moura, and A. Sloper. (2005). "The Impact of Project Portfolio Management on Information Technology Projects." *International Journal on Project Management*. 23 pp. 524-537.
- The Molson Coors Operational Portfolio Architecture: A Case Study by S. Bonham, R. Scudder, B. Morrato and J. Pashak

Robbins-Gioia, (2002) "ERP Survey Results Point to Need for Higher Implementation Success; Robbins-Gioia LLC identifies lack of focused management surrounding ERP implementations." *Business Wire*, 28 January

Sommer, Renee. (1999). "Portfolio Management for Projects: A New Paradigm." in *Project Portfolio Management*. Lowell D. Dye and James S. Pennypacker, (eds.), West Chester, PA; Center for Business Practices, 1999, pp..55-60.

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Prior to Coors, Barry's 15 years of global consumer brand management, product development, and technology commercialization was split between Procter & Gamble and Information Resources Inc. (IRI). With P&G, he served as Product Manager: North American Business Initiatives leading new product development and launches for several Food, Beverage, and Paper brands. As IRI's Vice President of Marketing/Analytic Insights, he was responsible for guiding client's marketing teams in maximizing marketing mix investment via consumer and market information management.

Barry lives in Evergreen, Colorado with his wife and three kids and enjoys Colorado's summer and winter activities.

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